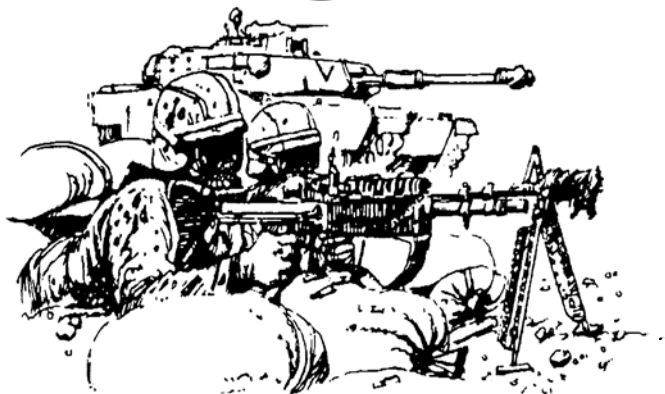


COMBAT LEADERS' GUIDE (CLG)



LEADER HANDBOOK

**U.S. ARMY RESEARCH INSTITUTE
FORT BENNING FIELD UNIT**

2003

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 00 FEB 2004		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE Combat Leaders' Guide (CLG) Leader Handbook 2003				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Research Institute Fort Benning Field Unit				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 230	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

1 2 3 4 5 6 7 8 9 10

CENTIMETERS

3

2

1

0

INCHES

INTRODUCTION

The Combat Leaders' Guide is both an extract of doctrinal publications and a compilation of tactics, techniques and procedures (TTPs). It is principally designed as a pocket reference and memory-jogger.

Some TTPs you have learned in training do not appear here. The material in this job aid comes from the doctrinal literature program.

Laminate pages to be written on; remove, reorganize or tab pages based on your mission; insert other job aids, TTPs or standing operating procedures (SOPs) as needed.

TABLE OF CONTENTS

BASIC COMBAT RULES	PAGE
Leading in combat	1-1
Basic rules of combat	1-2
PLAN	
Troop leading procedure	2-1
Warning order (WARNO)	2-2
Factors of METT-TC	2-3
Estimate of the situation	2-8
Operation order (OPORD)	2-15
Fragmentary order (FRAGO)	2-19
Time schedule	2-20
Light and weather data	2-21
MOVE	
Actions before march	3-1
Duties of quartering party	3-2
March orders	3-3
Actions during march	3-4
Actions at halts	3-5
Actions at assembly area	3-6

TABLE OF CONTENTS

ATTACK

Preparation for attack	4-1
Consolidation	4-3
Reorganization	4-4

DEFEND

Defensive priority of work	5-1
Defense planning outline	5-3
Coordination checklist	5-5
Establish observation post	5-7
Fighting position guidelines	5-8
Building fighting position	5-9
Range card preparation	5-11
Range card (blank)	5-13
Range card (sample)	5-14
Sector sketch preparation	5-15
Sector sketch (sample)	5-17
Occupation of a battle position	5-18

TABLE OF CONTENTS

DEFEND	PAGE
Fighting from a battle position	5-19
Fire distribution and control	5-20
Camouflage	5-21
Physical security	5-22
Defending during limited visibility	5-24
DELAY	
Fundamentals of delay	6-1
WITHDRAW	
Disengagement planning	7-1
Disengagement actions	7-2
Passage of lines coordination	7-3
Withdrawal under enemy pressure	7-4
Withdrawal not under enemy pressure	7-7
Relief in place	7-11

TABLE OF CONTENTS

PATROL/RECON

PAGE

Patrol planning steps	8-1
Patrol coordination	8-2
Complete the plan	8-4
Departure from friendly lines	8-6
Rally points	8-7
Patrol report (debriefed)	8-8
Selection of a patrol base	8-9
Occupation of a patrol base	8-10
Patrol base activities	8-11
Principles of a raid	8-12
Conduct a raid	8-13
Principles of an ambush	8-15
Organize an ambush	8-17
Conduct an ambush	8-19
Plan a recon mission	8-21
Recon zone	8-23
Recon area	8-25

TABLE OF CONTENTS

NBC	PAGE
NBC-1 report	9-1
NBC-4 report	9-2
NBC-prior to attack	9-3
NBC-during attack	9-4
NBC-after attack	9-6
Unmasking with chemical agent detector kit	9-8
Unmask without chemical agent detector kit	9-9
MOPP levels	9-10
Detailed troop decontamination	9-11
MOPP gear exchange	9-12
Mark contaminated area: radio- logical/biological/chemical	9-13
Prepare for NBC attack/protect against electromagnetic pulse	9-15
Supervise radiation monitoring	9-16
Using a dosimeter	9-17
Collect/report total radiation dose	9-18

TABLE OF CONTENTS

FIRE SUPPORT AND OBSERVATION	PAGE
Principles of fire support planning/coordination	10-1
Call for fire	10-2
Call for fire card	10-4
Target list worksheet	10-5
Mortar/artillery capabilities	10-6
AFV Weapon capabilities	10-7
Target acquisition/signature	10-8
Attack helicopter capabilities	10-9
Artillery counterfire	10-10
SUPPLIES/LOGISTICS	
Supplies and logistical services	11-1
Precombat check (mech)	11-2
Precombat check (light)	11-3
Classes of supply	11-4
Integration matrix - Individ. weapons	11-5
Integration matrix - crew served weapons	11-6
COMMUNICATIONS	
Electronic counter-counter measures	12-1
Radio troubleshooting	12-2

TABLE OF CONTENTS

COMMUNICATIONS

PAGE

Messenger briefing

12-3

Phonetic alphabet

12-4

MINES/DEMOLITIONS

Install/remove hasty protective minefield

13-1

DA Form 1355-1-R sample

13-3

DA Form 1355-1-R (blank)

13-4

Breaching and clearing minefields

13-5

Nonelectric firing system

13-6

Nonelectric/electric priming of demo block

13-8

Clear nonelectric/electric misfires

13-10

Electric firing system

13-11

PEACEKEEPING

Rules of engagement (ROE)

14-1

Area assessment checklist

14-2

Checkpoint/roadblock PIR checklist

14-4

TABLE OF CONTENTS

AIR ASSAULT OPERATIONS	PAGE
Aircraft troop commander briefing	15-1
Safety briefing checklist	15-2
Reverse planning sequence	15-3
Ground tactical plan considerations	15-4
Landing plan considerations	15-5
Landing zone selection criteria	15-6
Air assault PZ/LZ planning considerations	15-7
Extraction loading plan requirements	15-8
Leader duties in air assault operations	15-9
Chalk leader duties/platoon air assault	15-10
Set up a helicopter landing site	15-11
Night marking of PZs/LZs	15-13

TABLE OF CONTENTS

MEDICAL	PAGE
Evaluate a casualty/first aid	16-1
Shock - symptoms/first aid	16-2
Heat exhaustion/heat cramps	16-3
Heat stroke/sun stroke	16-4
Frostbite	16-5
Hypothermia/cold weather injury	16-6
Request army air MEDEVAC	16-7
Continuous operations planning	16-8
Heat precautions	16-10
VEHICLE RECOVERY	
Vehicle recovery procedure checklist	17-1
Vehicle recovery fundamentals	17-2
AIR DEFENSE	
Engaging aircraft	18-1
Weapons control status	18-1
Air defense warning	18-2
Local air defense warning	18-2
Engagement/lead distances	18-3
Passive air defense	18-4

TABLE OF CONTENTS

COMBAT IN CITIES

PAGE

Built-up area fighting principles

19-1

Attack and clear a building

19-2

Organize building defense

19-3

LEGAL ASPECTS OF WAR

Principles of the Law of War

20-1

**Handling of enemy prisoners of
war (EPWs)**

20-3

MISCELLANEOUS

Spot report/SALUTE

21-1

Find unknown range (WORM)

21-2

Conversion table: US/metric

21-3

Converting azimuths

21-4

Reduce risk of fratricide

21-5

Risk management

21-7

Risk management steps

21-10

Risk management matrix

21-12

TABLE OF CONTENTS

MISCELLANEOUS

PAGE

Personnel records

21-13

ACRONYMS

Acronyms

22-1

LEADING IN COMBAT

- | | |
|----------|--|
| 1 | Set the example |
| 2 | Lead from as far forward as you can |
| 3 | Lead from a position where your soldiers can see you/your vehicle |
| 4 | Lead from where you can control all elements physically or by radio |
| 5 | Move to influence the action |
| 6 | Make sound, quick decisions |
| 7 | Forcefully execute decisions |
| 8 | Use reverse planning sequence |

Notes:

BASIC RULES OF COMBAT

RULE

- | | |
|----------|---|
| 1 | SECURE
Use cover and concealment
Establish local security/recon |
| 2 | MOVE
Establish moving element/
move to position of advantage
Gain and maintain initiative |
| 3 | SHOOT
Establish base of fire/mutual
support
Kill/suppress the enemy |
| 4 | COMMUNICATE
Inform all of what you expect |
| 5 | SUSTAIN
Keep fight going/care for troops |

TROOP LEADING PROCEDURE		
STEP	ACTION	✓
1	Receive mission	
2	Issue warning order (WARNO)	
3	Make tentative plan	
4	Initiate necessary movement	
5	Conduct reconnaissance	
6	Complete plan	
7	Issue orders	
8	Supervise and refine	
Notes:		

WARNING ORDER (WARNO)

1. Situation _____

2. Mission _____

3. General Instructions

a. Special teams/task organization _____

b. Common uniform/equipment _____

c. Special weapons, ammo, equipment _____

d. Tentative time schedule _____

4. Special Instructions _____

FACTORS OF METT-TC		
(FACTORS APPLY TO FR & EN)		
ITEM	FACTORS	✓
1	MISSION	
	Commanders' intent 1 and 2 levels up	
	Specified tasks	
	Implied tasks	
	Mission essential tasks	
	Limitations/constraints	
	Restated mission	

FACTORS OF METT-TC		
ITEM	FACTORS	✓
2	ENEMY	
	Disposition/composition	
	Strength	
	Recent activities	
	Weaknesses	
	Possible Courses of action (COAs) including identifying the most dangerous	
	Probable COAs including identifying the most likely	
	Reinforcement abilities	

FACTORS OF METT-TC		
ITEM	FACTORS	✓
3	TERRAIN & WEATHER (OAKOC)	
	Observation and fields of fire	
	Avenues of approach	
	Key terrain	
	Obstacles and movement	
	Cover and concealment	
4	TROOPS & SUPPORT AVAILABLE	
	Quality, training level, and psychological state of friendly troops	
	Availability of critical systems and joint support	
	Availability of combat, CS, and CSS assets	

FACTORS OF METT-TC		
ITEM	FACTORS	✓
5	TIME AVAILABLE	
	Time available for planning, preparing, & executing mission (use 1/3-2/3 rule)	
	Tasks assigned to unit	
	Enemy/adversary capabilities	
	NOTE: Planning times include preparation of combat orders, inspections, rehearsals, and movement to line of departure	

FACTORS OF METT-TC		
ITEM	FACTORS	✓
6	CIVIL CONSIDERATIONS	
	Civilian populations, culture, organizations, and leaders within area of operations (AO)	
	Natural environment	
	Cultural sites	
	Civilian political, economic, and information matters	
	Civilian activities	
	Civilian attitudes	
Note:		

ESTIMATE OF SITUATION

1. MISSION ANALYSIS

a. Mission and intent of commander two levels up

b. Mission and intent of immediate commander

c. Assigned tasks and purpose (specified and implied tasks)

d. Constraints and limitations

e. Mission essential tasks

f. Restated mission

g. Tentative time schedule

ESTIMATE OF SITUATION	
2.	ESTIMATE OF SITUATION AND DETERMINE COURSES OF ACTION
	a. Terrain and weather - effects on personnel and equipment
	Terrain - OAKOC
	Weather - visibility, trafficability, mobility, survivability
	b. Enemy situation and most probable course of action
	Composition
	Disposition
	Recent Activities
	Capabilities
	Weaknesses
	Most probable COA based on doctrine/situation

ESTIMATE OF SITUATION

c. Friendly situation

Troops available

Equipment available

Time available

d. Friendly COA (repeat for EA COA)

**Decisive point and time to focus
your combat power**

Results that must be achieved

**Purposes and tasks of main and
supporting efforts**

**Task organization to accomplish
the mission**

Necessary control measures

**e. Prepare a COA statement and
sketch**

ESTIMATE OF SITUATION	
3.	ANALYZE COURSES OF ACTION
	a. Mission-specific factors
	Mission essential tasks
	Commander's intent
	Relative effectiveness
	Logistic support
	b. General factors
	Characteristics of offense and defense (as applicable)
	Factors of METT-TC
	Weapon utilization
	c. Conduct wargame of most likely & most dangerous courses of action

ESTIMATE OF SITUATION

4.	COMPARE COURSES OF ACTION CONSIDERING HOW WELL THE COA:	1	2	3
	a. Supports scheme of maneuver			
	b. Helps command & control (C2)			
	c. Concentrates combat power at the decisive point			
	d. Has forces providing mutual support			
	e. Responds to maneuver elements and reserve			
	f. Exploits enemy weaknesses			
	g. Reduces potential impact of adverse weather			

ESTIMATE OF SITUATION

4.	COMPARE COURSES OF ACTION CONSIDERING HOW WELL THE COA:	1	2	3
	h. Uses best avenue of approach			
	i. Provides adequate maneuver space			
	j. Maximizes observation and ranges of weapon systems			
	k. Provides cover and concealment			
	l. Considers obstacles			
	m. Controls key terrain			
	n. Helps speed of execution			
	o. Does not require adjustment of unit positions			

ESTIMATE OF SITUATION

4.	COMPARE COURSES OF ACTION CONSIDERING HOW WELL THE COA:	1	2	3
	p. Uses all headquarters			
	q. Reduces, not expands, normal combat service support (CSS)			
5.	DECISION			

OPERATION ORDER

Operation order (OPORD) - Directive by commander to his subordinates to coordinate execution of an operation. Stated in 5 paragraphs.

- 1. SITUATION. Provides overview of general situation. Explains what enemy is doing, what your higher and other friendly units are doing, and what units are attached and detached to and from your unit. Includes enemy's most likely and most dangerous courses of action.**
 - a. Enemy forces:**
 - b. Friendly forces:**
 - c. Attachments and detachments:**

OPERATION ORDER

2. MISSION. Mission statement is stated in terms of **WHO** (the unit taking action e.g., 1st PLT), **WHAT** (action e.g., conducts supporting attack), **WHEN** (date/time), **WHERE** (activity location e.g., on Hill 911), and **WHY** (purpose of mission e.g., to prevent the enemy from interfering with the main effort).

3. EXECUTION.

Intent: Commander's intent is a clear, concise statement of what the force must do to succeed with respect to enemy, terrain, and desired end state.

a. Concept of operations. Provides "big picture" or master plan. It is "how" information needed to accomplish the mission.

OPERATION ORDER

Concept of operation includes the scheme of maneuver and scheme of supporting fires. The scheme of maneuver states the commander's vision of how maneuver plan will unfold, from start to finish. The scheme of fires outlines how indirect fire support will synchronize with scheme of maneuver.

b. Tasks to maneuver units. Provides detailed mission statements for each major subordinate maneuver unit and how each supports main effort.

c. Tasks to combat support units. Tasks to combat support units only states specific tasks that combat support units must accomplish and that are not specified elsewhere.

OPERATION ORDER

d. Coordinating instructions. Common instructions that apply to more than one unit. Includes mission-specific items: NBC troop safety instructions, ADA criteria, passage of lines coordination, and any other item not covered in the unit SOP.

4. COMBAT SERVICE SUPPORT.

Addresses concept of logistics support . Includes unique resupply efforts, not normally performed by SOP, and material and services. Also medical evacuation procedures and personnel support.

5. COMMAND AND SIGNAL

a. Command. Covers leader and CP locations and command succession.

b. Signal. Covers signal instructions such as methods of signal, etc.

FRAGMENTARY ORDER

A FRAGO makes changes to an existing order. State paragraphs with changes, Those w/no changes, state "NO CHANGE".

Reference _____

Task Organization _____

1. Situation _____

2. Mission _____

3. Execution _____

4. Service Support _____

5. Command/Signal _____

TIME SCHEDULE

WHEN	WHAT	WHERE	WHO

LIGHT AND WEATHER DATA

ITEM	FIRST DAY	NEXT DAY
BMNT/EENT		
Sun Rise		
Sun Set		
Moon Rise		
% Illumination		
Moon Set		
NVG Hours		
Temp High/Lo		
Winds		
Precipitation		

Effects of light and weather:

ACTIONS BEFORE MARCH

STEP	ACTION	✓
1	Give warning order (WARNO)	
2	Select quartering party NCO and send to team command post	
3	Recon route from assembly area (AA) to start point (SP)	
4	Record time from AA to SP	
5	Adjust departing time from AA to arrive at SP on time	
6	Have crews perform precombat checks	
7	Have vehicle commanders report their status	
8	Give march order to vehicle commanders	

DUTIES OF QUARTERING PARTY

STEP	ACTION	✓
1	Inspect intended assembly area for enemy NBC/mines	
2	Secure PLT area until platoon arrives	
3	Establish and maintain communications	
4	Clear or mark obstacles	
5	Select general location of vehicle positions; mark places	
6	Select covered/concealed route to release point (RP); meet PLT	
7	Guide platoon into area	
8	Brief platoon leader	

MARCH ORDERS

1. Destination (map) _____

2. Route of march (map) _____

3. Location of start point (SP), critical midpoints, and release point (RP) (map) _____

4. SP time _____
5. March interval (meters) _____
6. March speed (mph/kph) _____
7. Catch up speed (mph/kph) _____
8. Time and location of scheduled halts

9. Time unit leaves present position _____

10. Order of march _____

ACTIONS DURING MARCH

ITEM	ACTION	✓
1	Arrive at SP on time at march speed with proper march interval	
2	Maintain ground and air security	
3	Observe vehicle sectors of responsibility	
4	Report SP, critical points, RP (unless under radio listening silence)	
5	If under radio listening silence - use hand and arm, flag, or flash-light signals	

ACTIONS AT HALTS

ITEM	ACTION	✓
1	Pull to side of route - maintain order	
2	Establish/maintain security	
3	Move disabled vehicles off road - post guides to direct traffic	
4	Maintain observation/contact with other vehicles	
5	Report status	
6	Take appropriate actions/repair vehicles if possible	

ACTIONS AT ASSEMBLY AREA		
ITEM	ACTION	√
1	Follow guides into preselected secure positions	
2	Clear release point without stopping or bunching vehicles	
3	Emplace/maintain security/OPs	
4	Conduct fire planning	
5	Notify higher of arrival based on plan/coordinate with other units	
6	Check/adjust positions; camouflage positions	
7	Start maintenance/resupply/rearming	
8	Prepare/rehearse reaction plan	

PREPARATION FOR ATTACK

TASK	ACTION	✓
1	Issue warning order	
2	Move to assembly area	
3	Perform communications check	
4	Check weapons	
5	Check key equipment	
6	Rehearse critical tasks	
7	Recon routes to line of departure (LD)/objective (OBJ)	
8	Issue operation order	
9	Resupply, rearm, refuel	
10	Coordinate w/higher, supporting, adjacent units	
11	Rehearse	
12	Conduct PMCS as required	
13	Check/integrate attachments	

PREPARATION FOR ATTACK

TASK	ACTION	✓
14	Check NBC situation/confirm MOPP status	
15	Inspect troops	
16	Inspect vehicles	
17	Feed troops	
18	Rest troops	
19	Move to LD	

Notes:

Several steps may occur concurrently.

CONSOLIDATION

STEP	ACTION	✓
1	Eliminate all remaining enemy resistance on objective	
2	Occupy hasty positions/prepare for counterattack	
3	Bring up base of fire element	
4	Prepare for a counterattack	
5	Position key weapon systems	
6	Develop quick fire plan	
7	Prepare range cards	
8	Begin planning to continue attack (map recon, orders)	

Notes:

REORGANIZATION

STEP	ACTION	✓
1	Reestablish chain of command	
	Restore communications with higher, adjacent, FSO	
	Report status: ACE (Ammunition/Casualties/Equipment)	
	Request resupply as needed	
2	Reestablish security/preparation for counterattack	
	Remain key weapons	
	Redistribute ammunition, supplies, equipment as needed	
3	Clear objective of casualties & enemy prisoners of war	
	Treat, evacuate, process	

REORGANIZATION

STEP	ACTION	✓
4	Prepare for next mission	
	Relocate weapons & positions Reoccupy & repair positions Repair obstacles & mines Repair & maintain equipment	

Notes:

DEFENSIVE PRIORITY OF WORK

STEP	TASK	✓
1	Establish local security	
2	Position key weapons & vehicles	
3	Position squads/assign sectors	
4	Make communications checks	
5	Coordinate with adjacent units for interlocking sectors	
6	Clear fields of fire	
7	Prepare range cards	
8	Prepare squad and platoon sector sketches	
9	Site final protective line (FPL), final protective fires (FPF), and priority targets	

DEFENSIVE PRIORITY OF WORK

STEP	TASK	✓
10	Prep fighting positions	
11	Emplace mines and obstacles	
12	Establish fire control measures	
13	Assign alternate and supplementary battle positions	
14	Take NBC protective measures	
15	Improve primary positions	
16	Prep alternate then supplementary positions	
17	Establish sleep/rest plan	
18	Recon supply/evacuation routes	
19	Rehearse actions on contact	
20	Stockpile ammunition/food/water	
21	Continue to improve positions	

DEFENSE PLANNING OUTLINE

1. Commander's intent _____

2. Platoon/squad mission _____

3. Position in company defense _____

4. Sectors of fire/EAs/TRPs _____

5. Fire support available _____

**6. Evacuate/destroy procedures for
damaged vehicles** _____

DEFENSE PLANNING OUTLINE

7. Evacuation procedures for friendly casualties _____

8. Place to take EPW _____

9. Special signals to use _____

10. On-order mission for platoon/squad

11. Position and mission of units on flanks _____

12. Position and mission of units in the rear _____

COORDINATION CHECKLIST

STEP	ITEM	✓
1	Location of leaders	
2	Location of primary, alternate, and supplementary positions	
3	Sectors of fire of machine guns, anti-armor weapons & subunits	
4	Route to alternate and supplementary positions	
5	Location of dead space between platoons and squads and how to cover it	
6	Location of OPs and withdrawal routes back to the platoon or squad position	
7	Location and types of obstacles and how to cover them	

COORDINATION CHECKLIST

STEP	ITEM	✓
8	Patrols - size, type, times of departure/return and routes	
9	Fire support planned	
10	Location, activities and passage plan for scouts and other units forward of platoon position	
11	Signals for fire/cease fire and any emergency signals	
12	Engagement and disengagement criteria	
13	Location of coordination points	

ESTABLISH OBSERVATION POST

ITEM	ACTION	✓
1	Select site with cover & concealment and overlapping sectors	
2	Designate OPs & security force Establish reporting procedures Establish withdrawal plan with procedures and routes	
3	Prepare to call for/adjust indirect fire; use binoculars/NODs; navigation tools and communications equipment	
4	Conduct surveillance - name observer, recorder and security Search, identify and report personnel, vehicles, etc. Use overlapping sectors of observation	
5	Change observers every 20-30 minutes as situation permits	

FIGHTING POSITION GUIDELINES

ITEM	DESCRIPTION	✓
1	Protection - adequate to cover enemy weapons Position - provide cover & concealment - ensure can't be seen Fill sandbags 3/4 full Revet excavations in sandy soil Check stabilization of wall bases Inspect daily, especially after rain and after direct/indirect fires Maintain, repair, improve Use proper material, correctly	
2	Site to engage the enemy Select best position, cover dead space, use maximum effective range & provide interlocking fires Priority to effective weapon system use; METT-TC dependent	
3	Prep by stages with inspection Improvement is progressive	

BUILD FIGHTING POSITION

STAGE	ACTION
1	<p><u>Establish position:</u> Leader check fields of fire, soldier emplace sector stakes Position log or sandbag between stakes Scoop out elbow holes Position limited visibility aiming stakes Trace outline on ground Clear fields of fire Leader inspects position</p>
2	<p><u>Emplace walls:</u> 1 helmet distance from hole to start of cover Front wall 2-3 sandbags high by 2 M16s long for 2-man position Flank wall same height, 1 M16 long; rear wall 1 sandbag high by 1 M16 long Stakes required to hold logs Leader inspects position</p>

BUILD FIGHTING POSITION

STAGE	ACTION
3	<u>Dig the position:</u> Throw and pack dirt Armpit deep Parapets filled - camouflaged Grenade sumps dug/floor sloped Rucksack storage optional Leader inspects position
4	<u>Overhead cover:</u> Camouflage blended, can't be detected at 35 meters Logs placed over center front-to-rear Waterproof - plastic bags or ponchos placed over top 6"- 8" of dirt/sandbags on top Overhead cover/bottom camouflaged Leader inspects position

RANGE CARD PREPARATION

Make card and copy for each primary, alternate, and supplementary position

STEP	ACTION	✓
1	Draw symbol for weapon/position in center of circle	
2	Draw/label left/right sector limits	
3	Determine range value for each circle by dividing range to most distant terrain feature by number of circles and label card	
4	Draw final protective lines/principal direction of fire	
5	Draw and number TRPs, RPs and possible EAs as ordered	
6	Show dead space areas and label	
7	Draw maximum engagement lines	
8	Draw terrain features and mark weapon reference point from terrain or grid	

RANGE CARD PREPARATION

STEP	ACTION	✓
9	Fill in data section	
	Identify primary, alternate or supplementary position	
	Date & time range card complete	
	Identify weapon/vehicle	
	List left/right limits, TRPs, reference points in numerical order	
	Show gun elevation (mils), ammunition, range (meters) to limits, TRPs & reference points, describe objects	
10	Fill in weapon reference data (description, grid, magnetic azimuth, distance from weapon to position) in remarks	
11	Fill in marginal information, not higher than company and direction of magnetic north arrow	

RANGE CARD PREPARATION

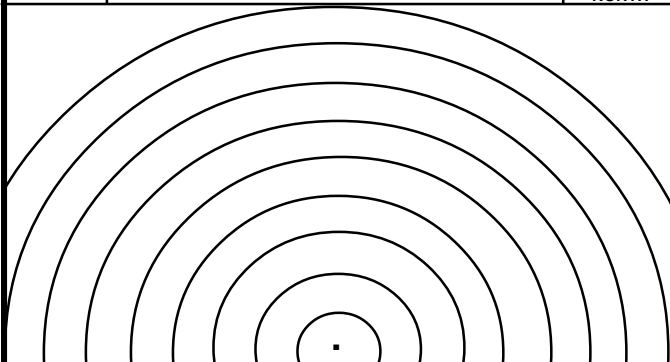
SQD _____

PLT _____

CO _____

May be used for all types of direct fire weapons

MAGNETIC
NORTH



DATA SECTION

POSITION IDENTIFICATION

DATE

WEAPON

EACH CIRCLE EQUALS _____
METERS

NO.	DIRECTION/ DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION

REMARKS:

DA FORM 5517 R

RANGE CARD PREPARATION

STANDARD RANGE CARD

For use of the data on FM 7-12. The appropriate number in RAACOM.

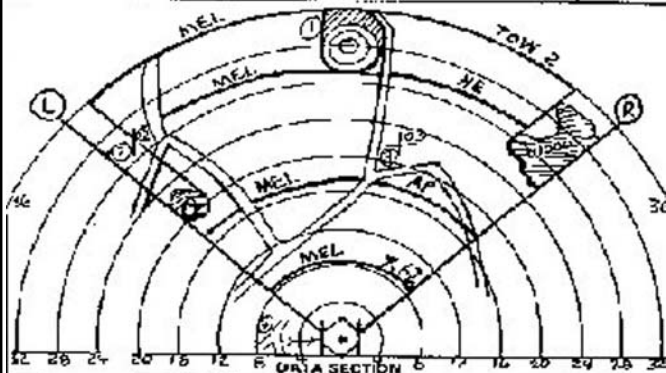
SOD 1

PLT 2

CD C

May be used for all types of direct fire weapons

MAGNETIC
NORTH



POSITION IDENTIFICATION

PRIMARY

DATE

3 MAR 83/1140 HRS

WEAPON

M2

C-2.1

EACH CIRCLE EQUALS

400

METERS

NO.	DIRECTION/ DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
L	350°/5300M	0M	2000M	TOW2	FARMHOUSE
R	105°/9200M	1100M	2600M	TOW2	R/SIDE BLOODLINE
1	6400M	1500M	2200M	TOW2	RP - HILLTOP
2	5910M	4100M	2700M	TOW2	TRF - ABCD2 RT
3	600M	-100M	1800M	TOW2	TRF - ABCD3 RT

REMARKS:

4 TRF - RT AT 1.1N 13629411, 100° AT 32.0M

A FORM 875-A (1-78)

SECTOR SKETCH PREPARATION

Make card and copy for each primary, alternate and supplementary position

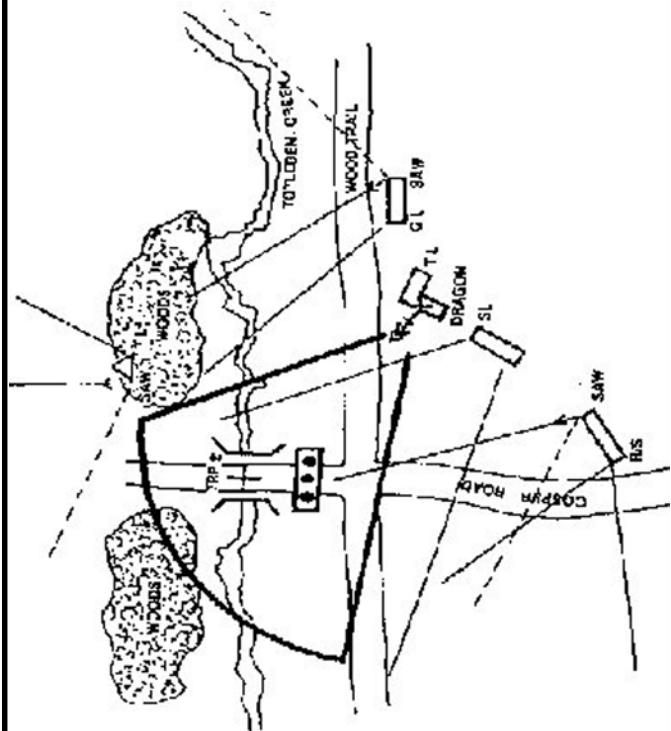
ITEM	ACTION	✓
1	Draw your unit sector or EA	
2	Draw main terrain features in sector(s) and range to each	
3	Draw subunit positons	
4	Draw subunit primary and secondary sectors of fire	
5	Draw weapon positions with primary sectors of fire for each	
6	Draw maximum engagement line for each weapon/ammunition	
7	Draw machine gun/cannon final protective lines or principal direction of fire	
8	Draw location of CP/OP	
9	Draw TRPs and RPs in sector	

SECTOR SKETCH PREPARATION

ITEM	ACTION	✓
10	Draw mines/obstacles	
11	Draw indirect fire target locations/final protective fire locations	
12	Draw and label dead space	
13	Draw patrol routes	
14	Draw locations, sector of fire of other weapons in your sector	
15	Draw location of NODs for use in limited visibility plan	
16	Place your unit ID, date-time group prepared, and magnetic north arrow on sketch (pencil)	

Notes:

SECTOR SKETCH PREPARATION



OCCUPATION OF A BATTLE POSITION (BP)

STEP	ACTION	✓
1	Move to turret-down position on BP	
2	Keep rest PLT in hide position(s)	
3	Recon primary, alternate & supplementary positions	
4	Designate general location of primary positions; move platoon	
5	Designate primary sectors of fire/EA/TRP	
6	Designate alternate and supplementary positions, sectors of fire/EA/TRP	
7	Coordinate w/flank/adjacent units OPs/patrols Observation and fields of fire Positions/routes of withdrawal	
8	Report situation to CO/TM CDR	
9	Improve position; plan routes to next BP	

FIGHTING FROM A VEHICLE BATTLE POSITION (BP)

STEP	ACTION	✓
1	Determine targets to engage	
2	Determine methods of target engagement	
3	Send contact and spot report	
4	Issue platoon fire commands	
5	Call for indirect fire as needed	
6	Send SPOT reports	
7	Move to subsequent BP	
8	Keep CO/TM CDR informed of situation and location	
9	Organize to fight from BPs	

FIRE DISTRIBUTION AND CONTROL

ITEM	PRINCIPLE
1	Engage critical targets first; engage laterally and in depth
2	Avoid target overkill
3	Use fire distribution Incorporate indirect fires Use each weapon in its best role
4	Destroy most dangerous targets first, considering range, terrain and weapon capability
5	Concentrate on long range targets if possible, to gain standoff advantage
6	Take best shots; expose only systems actually needed
7	Control firing; conserve ammunition if possible
8	Avoid fratricide
9	Engage different threats simultaneously

CAMOUFLAGE

STEP	ACTION	✓
1	Prepare individual/equipment	
2	Consider position from enemy viewpoint	
	Use natural concealment/blend	
	Reduce shine and movement	
	Observe from prone position	
	Don't skyline when moving	
3	Inspect the following areas	
	Individuals/Fighting positions	
	Vehicles and routes in and out	
	Noise/light discipline plan	
	Camouflage nets	
4	Break up vehicle silhouettes - use nets	
5	Reduce glare and signatures	
6	Reduce vehicle noise	

PHYSICAL SECURITY

STEP	ACTION	✓
1	Conduct patrols	
2	Conduct stand-to (general)	
	Troops ready	
	Vehicles topped off/loaded/ ready	
	Basic load of missiles/ammo	
	Weapons loaded/ready	
	Radios on/tested	
3	Conduct stand-to (evening)	
	Emplace vision block covers/ turn internal lights off	
	Ready driver's night vision viewer	
	Test panel control lights/ thermal sights	
	Prepare NVGs/NODs	

PHYSICAL SECURITY

STEP	ACTION	✓
	Check all batteries	
	Upload weapons/ammunition	
	Inspect vehicle position to ensure no light is visible after dark	
4	Conduct silent watch	
	Assign sectors for surveillance	
	Use manual, battery, or auxiliary vehicle power when possible	
	Use radio listening silence	
	Rotate troops using thermal sight(s)	
	Lay guns on primary AAs/EAs	
5	Post local security	
	Assign sectors/observe sectors	
	Adjust position(s) closer to vehicle(s) at night	

DEFENDING DURING LIMITED VISIBILITY

ITEM	ACTION	✓
1	Employ long range STANO equip (sensors, NODs, etc.)	
2	Coordinate any movement outside battle position boundaries with higher and adjacent units	
3	Redeploy some units/weapons to concentrate along dismounted avenues of approach	
4	Employ scouts, OP, patrols, ambushes, and armor killer teams forward on secondary AA and between positions	
5	Employ nuisance obstacles and early warning devices along likely night approaches	

DEFENDING DURING LIMITED VISIBILITY

ITEM	ACTION	✓
6	Plan required movement of weapons, units, and massing of fires on enemy approaches	
7	Rehearse movement of weapons, units, and massing of fires on enemy approaches	
8	Reposition weapons to take advantage of differences between enemy and friendly STANO devices	
9	Plan illumination on or behind engagement areas to silhouette enemy	

DEFENDING DURING LIMITED VISIBILITY

ITEM	ACTION	✓
10	Move TRPs and/or EAs closer to defensive positions or move weapons closer to them- use METT-TC	
11	Commence adjustments to defensive organization before dark	
12	Complete return to daylight positions before dawn	
13	Move closer to avenue(s) of approach you guard during bad weather	
14	Be aware that sensors and radar may still penetrate bad weather	

FUNDAMENTALS OF DELAY

ITEM	ACTION	✓
1	Centralized control and decentralized execution	
	Maintain enemy contact	
	Coordinate flank security	
2	Maximize OAKOC	
	Observation and fields of fire	
	Avenues of approach	
	Key terrain	
	Obstacles and movement	
	Cover and concealment	
3	Force enemy to maneuver/deploy	
	Use snipers, ambushes to slow enemy forces	
	Trade space for time	
4	Use obscuration smoke or night moves to cover withdrawing forces	

FUNDAMENTALS OF DELAY

ITEM	ACTION	✓
5	Use obstacles	
	Natural and reinforcing	
	Cover by observation/fire	
6	Maintain enemy contact	
	Keep enemy in sight	
	Observe and adjust fires	
7	Keep free to maneuver	
	<u>Avoid</u> decisive engagement	
	Displace to next position. Move less engaged forces first, more heavily engaged forces move under cover of security force	
8	Missions: delay in sector or forward of a line or position for specified time	
9	Assign sectors for each committed unit/avenue of approach	
10	Each unit sets up own security	

DISENGAGEMENT PLANNING

1. Scheme of maneuver _____

2. Time of disengagement _____

3. Priority of disengagement _____

4. Location of new positions _____

5. Size and composition of advance parties _____

6. Size and composition of overwatch forces _____

7. Location of overwatch forces _____

8. Combat service support _____

DISENGAGEMENT ACTIONS

ITEM	ACTION	✓
1	Deceive the enemy with smoke, patrols, fires, radio transmissions	
2	Use overwatch elements to keep enemy pressure off disengaging forces	
3	Maintain OPSEC/COMSEC	
4	Recon/prepare routes	
5	Recon/prepare new positions	
6	Plan to move wounded	
7	Plan to move equipment	
8	Move CSS early	
9	Move during limited visibility	
10	Use obstacles to slow enemy	

PASSAGE OF LINES COORDINATION

(MECH)

- 1. Disposition of the stationary force**
- 2. Contact points**
- 3. Select routes**
- 4. Size of passage lanes**
- 5. Attack position (forward move)**
- 6. Assembly area (rearward move)**
- 7. Initial location**
- 8. Time of transfer of responsibility**
- 9. Traffic control/guides**
- 10. Communications/call signs/
frequencies**
- 11. Supporting fires**
- 12. Recognition signals**
- 13. CS/CSS**
- 14. Execution**

(LIGHT)

- 1. Ask for chg to previous coordination**
- 2. Known or suspected enemy**
- 3. Fire & barrier plan**
- 4. Actions on contact**
- 5. What type support provided**

WITHDRAWAL UNDER ENEMY PRESSURE

ITEM	ACTION	✓
1	Withdrawal principles	
	CO CDR controls sequence of PLT withdrawals/PLT LDR controls squad movements	
	Execute initiate break contact drill using fire, maneuver, over-watch, obscuration	
2	Disengagement technique based on enemy status, terrain, available covering fires	
	Simultaneous when overwatch is present; by teams; thinning the lines	

WITHDRAWAL UNDER ENEMY PRESSURE

ITEM	ACTION	✓
3	Maintain base of fire	
	Move AT weapons/tanks back first against enemy mounted attack	
	Use Infantry in close terrain/ limited visibility/against dismounted enemy	
4	Plan for/specify	
	Scheme for maneuver	
	Time of withdrawal	
	Location of new positions	
	Size/make-up of advance party/overwatch forces	
	Battle/overwatch positions	
	Routes/checkpoints	

WITHDRAWAL UNDER ENEMY PRESSURE

ITEM	ACTION	✓
	Remount point(s)	
	Evacuation of wounded	
	Evacuation of equipment	
	Priorities	
	Obstacles	
	Items to destroy	

Notes:

WITHDRAWAL NOT UNDER ENEMY PRESSURE

ITEM	ACTION	✓
1	Withdrawal principles	
	Speed/secrecy/deception	
	At night/in reduced visibility	
	As part of a larger force to perform another mission	
2	For platoon as the company security force:	
	Cover entire company area	
	Reposition squads/weapons to cover withdrawal	
	Place 1 squad's key weapons in each platoon position to cover most dangerous AA	
	CO XO or PLT LDR is security force leader	

WITHDRAWAL NOT UNDER ENEMY PRESSURE

ITEM	ACTION	✓
3	Forward security force made up of 1 squad/1MG team/2 AT-4s	
	Squad leader left in position is platoon security leader	
	Reposition squad to cover platoon withdrawal and PLT area	
	CP security force CDR controls PLT security force during withdrawal	
4	Security Force	
	Conceals withdrawal	
	Deceives enemy - keeps up normal operating patterns	
	Provides covering fire if enemy attacks	
	Withdraw when company is at next position or as ordered	

WITHDRAWAL NOT UNDER ENEMY PRESSURE

ITEM	ACTION	✓
	Receives withdrawal order by radio codeword	
	Uses company plan to withdraw	
	Reassembles to move to rear	
	If under attack, conducts fire and maneuver to rear until they break contact	
5	Quartering party:	
	Send ahead before withdrawal	
	PSG and guide per each squad	
	Recons and selects positions/sectors/routes/OP for platoon	
	Meets/guides platoon into position	
	PSG meets/briefs PLT LDR on position/situation	

WITHDRAWAL NOT UNDER ENEMY PRESSURE

ITEM	ACTION	✓
6	Company OPORD contains:	
	Time withdrawal will start	
	Location of PLT/CO assembly area and routes between	
	Platoon mission(s) upon arrival	
	Size/organization/CDR of security force	
	Next company/platoon mission	
7	Platoon leader plans:	
	When his withdrawal starts	
	Location of squad/PLT assembly areas and routes between	
	Squad missions on arrival	
	Size/organization/CDR of security force	
	Next platoon/squad mission(s)	

RELIEF IN PLACE

ITEM	ACTION	✓
1	Incoming leader recons area	
2	Incoming and outgoing leaders coordinate	
3	Exchange liaison personnel	
4	Coordinate positions of weapons and vehicles	
5	Exchange range cards and fire plans	
6	Exchange relief or organic fire support elements	
7	Coordinate obstacles locations	
8	Transfer responsibility for minefields	
9	Coordinate routes into and out of positions	
10	Coordinate vehicle guides	

RELIEF IN PLACE

ITEM	ACTION	✓
11	Transfer excess ammo, POL, and other material to incoming unit	
12	Coordinate communications during relief	
13	Coordinate enemy situation and intelligence	
14	Coordinate sequence of relief	
15	Coordinate time of change of responsibility for the area	

Notes:

PATROL PLANNING STEPS

STEP	ACTION	✓
1	Identify actions on objective then plan backward	
2	Analyze mission in accordance with factors of METT-TC	
3	Task organize	
4	Organize patrol	
5	Select personnel/weapons and equipment	
6	Issue warning order	
7	Coordinate	
8	Make reconnaissance	
9	Complete detailed plans	
10	Issue order	
11	Supervise/inspect/rehearse	
12	Execute mission	

PATROL COORDINATION

ITEM	DESCRIPTION	✓
1	Between leader and battalion staff or company commander	
	Changes/updates to enemy situation	
	Best use of terrain for routes, RPs, and patrol bases (PBs)	
	Light/weather data	
	Changes in friendly situation	
	Attachment of soldiers with special skills/equipment	
	Use/location of landing zones	
	Departure and reentry of friendly lines	
	Fire support on objective and along planned primary/alternate routes	
	Rehearsal areas & times	
	Special equipment	

PATROL COORDINATION

ITEM	DESCRIPTION	✓
	Transportation support	
	Signal plan	
2	Coord with unit through which PLT/SDQ will conduct forward and rearward passage of lines	
3	Patrol leader coordinates with leaders of other patrols	

Notes:

COMPLETE THE PLAN

ITEM	DESCRIPTION	✓
1	Mission essential and supporting tasks on objective, RPs, danger areas, security/surveillance locations, along routes/passage lanes	
2	Key travel and execution times for movement, leader recon, establishment of security, completion of tasks on objective, movement to ORP, return through friendly lines	
3	Primary and alternate routes	
4	Signals, including rehearsal of special signals	
5	Challenge and password forward of friendly lines (SOI not forward of FEBA)	

COMPLETE THE PLAN

ITEM	DESCRIPTION	✓
6	Actions on enemy contact, including WIA/KIA, EPWs	
7	Contingency plans	
	Where leader is going	
	Who else is going along	
	Amount of time leader is planning to be gone	
	Actions to be taken if leader does not return	
	Actions on chance contact while leader is gone	

DEPARTURE FROM FRIENDLY LINES

ITEM	DESCRIPTION
1	Coordinate with CDR of forward unit/leaders of other patrols SOI, plans, password, procedures, rally points, enemy information
2	Patrol leader provides unit ID, patrol size, departure and return times, AO
	Forward unit provide information on terrain, enemy positions/activity, ambush sites, friendly positions, OPs, and obstacles
3	Planning Move to initial rally point Complete final coordination Move to/through passage point/ single file Establish security

RALLY POINTS

ITEM	DESCRIPTION
1	Selection Easy to find Offer cover & concealment Away from natural lines of drift Defendable for short periods
2	Types <u>Initial</u> - inside friendly lines <u>En route</u> - every 100-400 meters based on terrain, vegetation, visibility <u>Objective rally point (ORP)</u> out of sight, sound, small arms range <u>Reentry rally point</u> outside friendly final protective fire (FPF) <u>Near & far side rally points</u> - danger areas

PATROL REPORT (DEBRIEFED)

A. Patrol size and composition _____

B. Mission (type, location, purpose of patrol) _____

C. Time of Departure and return _____

D. Routes out and back (checkpoints, grid, overlays) _____

E. Description of terrain and enemy position _____

F. Results of enemy encounters _____

G. Misc information/map corrections _____

H. Condition of personnel _____

I. Conclusions/recommendations _____

SELECTION OF A PATROL BASE

STEP	ACTION	✓
1	Pick tentative patrol base site from map or aerial recon	
2	Plan for alternate site; recon and observe until occupied or not needed	
3	Select site considering lack of tactical value to enemy, terrain, trafficability, water	
4	Plan for OPs/commo with OPs	
5	Plan for defense of patrol base, withdrawal routes, rally and rendezvous points	
6	Provide security/alert plan, camouflage, noise/light/litter discipline	
7	Avoid enemy positions, built up areas, ridges, roads/trails, slopes	

OCCUPATION OF A PATROL BASE

STEP	ACTION
1	Approach - halt patrol Conduct leader recon of site
2	Recon
	Patrol leader designates entry point/CP at center of base
	Element leaders recon sectors and return to CP
	Leader sends 2 pers to bring patrol forward
3	Occupation single file/camouflaged
4	Leader checks perimeter by meeting element leaders in turn
5	R&S team recon forward, move clockwise
6	R&S teams report enemy activity, OPs, RPs, withdrawal routes
7	Leader designates routes and RPs outside
8	Each element sets commo, OPs

PATROL BASE ACTIVITIES

STEP	ACTION
1	Security
	One point of entry/exit
	Noise/light/litter discipline - challenge all
	Aiming stakes & claymores placed
	Each squad establishes OP
	Each squad digs hasty positions
	SLs prep sector sketch/range cards
2	Alert plan and stand-to time day/night
	Check positions, OPs, rotate leaders
3	Withdrawal plan
	Signals, order, rendezvous point
4	Maintenance plan for weapons, communications, and NVDs
5	Sanitation & personal hygiene plan
6	Mess plan and water resupply
7	Sterilize upon departure

PRINCIPLES OF A RAID

ITEM	TASKS	✓
1	Conduct with combat patrol; plan withdrawal	
2	Attack /destroy position/ installation	
3	Destroy or capture enemytroops/ equipment	
4	Rescue friendly personnel	
5	Gather Priority Intelligence Requirements (PIR)	
6	Do not become decisively engaged	
7	Attack when least expected, in poor visibility, from unexpected direction and terrain	
8	Concentrate fire at critical points	
9	Achieve violence by surprise, massed fire, aggressive attack	

CONDUCT A RAID

STEP	ACTION	✓
1	Patrol move to ORP for recon	
	Recon & secure ORP, conduct leader recon of objective	
	Coordinate movements of elements to objective	
2	Security element duties	
	Move to positions, secure ORP	
	Block avenues of approach into/prevent escape from objective area- seal off area	
	Inform patrol leader of changes on objective	
	Shoot only if detected or on order; cover withdrawal of assault and support elements from ORP	

CONDUCT A RAID

STEP	ACTION	✓
3	Support element duties:	
	Move into position prior to assault element	
	Cover withdrawal of assault element	
	Withdraw on order/signal	
4	Assault element duties:	
	Deploy close to objective for immediate assault (if detected)	
	Seize, secure objective when supporting fire lifts or shifts	
	Protect demolition/search teams	
	Withdraw on order/signal	
5	Reorganize patrol 1km or 1 terrain feature from ORP	
	Report	
	Redistribute ammunition	
	Treat casualties	
	Disseminate information	

PRINCIPLES OF AN AMBUSH

ITEM	PRINCIPLE	✓
1	Place effective fires into entire kill zone - assign sectors	
2	Use well-trained teams with simple plan and prior recon	
3	Maintain security, especially when returning to friendly psn	
4	Soldier and weapon placement - priority to concealment and fields of fire	
5	Clear signals to open/shift/cease fire	
6	<u>Point ambush</u> - enemy attacked in single kill zone	
7	<u>Area ambush</u> - unit deploys to two or more related point ambushes in area	
	Security elements/teams on flank and rear if possible	

PRINCIPLES OF AN AMBUSH

ITEM	PRINCIPLE	✓
	PLT LDR reorganizes into 3 elements: assault , support , and security element	
	Man trap/natural boundary on far side of kill zone Plan indirect fires to seal area & cover withdrawal Initiate with most casualty producing weapon - have backup	
8	<u>Vehicular ambush</u> - stop lead and trail vehicles in kill zone; kill armor first	
9	<u>Night ambush</u> similar to day	
	Control soldiers/issue clear orders and signals	
	Use sector stakes Move to position after EENT Plan illumination	

ORGANIZE AN AMBUSH

STEP	ACTION	✓
1	Point or area? L-shaped or linear?	
2	Are routes to and from concealed and known to all?	
3	Do positions provide early warning & effective fires onto kill zone?	
4	Is kill zone isolated and dead space covered w/mines, demolitions, and indirect fire?	
5	Does everyone know signal (and backup) to warn of enemy approach, initiate ambush, shift/lift, withdraw?	
6	Does everyone know withdrawal routes and sequence?	

ORGANIZE AN AMBUSH

STEP	ACTION	✓
7	Are routes covered by mines or indirect fire if ambush fails?	
8	Does everyone know what to do if ambush detected?	
9	What is the running password?	
10	Does everyone know teams/ tasks?	

Notes:

CONDUCT AN AMBUSH

STEP	ACTION	✓
1	Ambush formation based on METT-TC/overall situation	
	Ease of control/target	
2	Patrol halt at ORP	
	Establish security/confirm location	
	Recon objective to confirm plan	
	Return to ORP/leave R&S team	
3	<u>Security</u> element secure ORP & flank of ambush site	
4	<u>Support/assault</u> elements leave ORP	
	When security in position	
	Occupy positions	
	Support overwatches assault move to ambush site	

CONDUCT AN AMBUSH

STEP	ACTION	✓
5	Patrol waits for target after all elements in position	
6	Security team alerts patrol on enemy direction of movement, target size, special weapons/ equipment	
7	Patrol ldr alerts other elements	
	Initiates when most of target in kill zone	
	Lift/shift fire if assault into zone required	
8	Withdraw to ORP for accountability, disseminate information, return to friendly position	

PLAN A RECON MISSION

STEP	ACTION	✓
1	Make estimate of the situation	
	Current intelligence	
	Capabilities of unit	
	Task organize to support mission	
2	Plan	
	Intelligence	
	Deceptive measures	
	Use of smallest unit possible to accomplish mission	
	Methods to remain undetected	
	Use of STANO devices	
	Rehearsal	
	Ways to minimize audio and electronic equipment	
	Inspection of recon force and equipment	

PLAN A RECON MISSION

STEP	ACTION	✓
3	Subordinate missions	
	Command and control	
	Recon of objective	
	Security of force	

Notes:

RECON ZONE

ITEM	METHOD
1	Use fan method
	PLT LDR selects series of ORPs through zone
	Select recon routes to and from ORP - overlapping routes form fan shaped pattern around ORP. Recon elements recon adjacent routes
	After recon complete, move to next ORP and repeat
2	Use converging routes method
	Leader select ORP. Recon routes through zone, and then a link up point
	Each element recons own route; entire unit links up at end

RECON ZONE

ITEM	METHOD
3	Use successive sectors method
	Leader selects ORP, a series of recon routes, and link up points
	Each link up point becomes ORP for next phase

Notes:

RECON AREA

ITEM	METHOD
1	<u>Separate</u> recon and security elements if objective restricted in area, clearly defined, with specific avenues of approach
	Conduct leader recon
	Designate positions for security team
	Security teams move on covered and concealed routes to positions
	After security in place, recon element departs ORP to recon objective
	After objective recon, recon element and security return to ORP and disseminate information <u>OR ...</u>

RECON AREA	
ITEM	METHOD
2	Combine R&S elements if objective not clearly defined and located, and terrain does not permit PLT to secure objective area or if detection possible
	One R&S team stay in ORP to act as reaction force in case of contact
	Several R&S teams recon separate parts of objective, then link up at ORP
	2 R&S teams use ORP as release point, then link up at point on far side of objective
	1 R&S team w/one follow-on security team to follow, acts as quick reaction force; entire unit departs when recon complete

RECON AREA

ITEM	METHOD
3	Recon objective by long range surveillance if possible; short range surveillance if required by METT-TC
	Avoid detection
	Observe/collect/record information about enemy
	Use binoculars
	Use well-rehearsed plan
	Cover movement with battlefield noise
	Establish control measures, alternate routes, fire support
Notes:	

NBC-1 REPORT

LINE	ITEM	*CHEM/BIO
B	Position of observer - (UTM coord)	
C	Direction of attack from observer (Degrees) (Mils)	
D	Date-time group of detonation/ *area attacked (DTC)	
F	Location of attack/*area attacked (Actual) (Estimated) (UTM coord)	
G	Means of delivery (artillery, mortar, spray, etc.)	
H	Height of burst/*type of agent (Air) (Surface) (Unknown)	

NBC-4 REPORT

LINE	ITEM
H	Height of burst/*agent-type (Air) (Surface) (Unknown)
Q	Location of reading (UTM coord) (Air) (Liquid)
R	Dose rate - measure in open, 1 meter above the ground (cGy/hr)
S	DTG of initial reading

NBC-PRIOR TO ATTACK

STEP	ACTION	✓
1	Increase MOPP level IAW intel	
2	Set up chemical agent alarm 100-150 m out and upwind	
	Prevent tampering	
	Attach M42 to M43A1 w/wire (MAX 400M); place near PLT command post	
	Reservice/check every 24 hrs	
3	Affix M8/M9 detector paper	
4	Prepare overhead cover	
5	Alert detection teams, M256 kit	
6	Leaders check for readiness	
7	Cover equipment not in active use	

NBC-DURING ATTACK

STEP	ACTION	✓
1	STOP BREATHING, MASK AND GIVE ALARM	
	Warn subordinate and higher units: send "GAS, GAS, GAS, AND GRID" message	
	Leaders give order to mask and take protective action	
2	Seek overhead cover for self, cover equipment, close up vehicle	
3	Decontaminate M258A1/M291 on skin and equipment M11/M13DAP to apply DS2	
4	Go to MOPP4	
5	Initiate detection measures: vapor M256 kit; liquid M8/M9 paper; close inlet/outlet ports of M8A1 alarm	

NBC-DURING ATTACK

STEP	ACTION	✓
6	Report; send follow up NBC1 reports	
7	Leaders check personnel and protection	
8	Continue the mission	

Notes:

NBC-AFTER ATTACK

STEP	ACTION	✓
1	CONTINUE THE MISSION	
2	Minimize effects on personnel/ equipment	
3	Inform command post of extent of contamination	
	Mark personnel, equipment ,and areas	
4	Maintain MOPP4 until ordered to lower level	
5	Decontaminate personnel w/M258A1/M291 kits; Apply DS-2 to vehicles	
	Hasty decontamination: MOPP gear exchange, vehicle wash down w/M17LDS, M12	

NBC-AFTER ATTACK

STEP	ACTION	✓
	Deliberate decontamination: detailed troop (unit), equipment (decontaminate PLT)	
6	Casualties - decontaminate with PDK and wrapped as appropriate	

Notes:

UNMASKING WITH CHEMICAL AGENT DETECTOR KIT

STEP	ACTION	✓
1	Use all available detection equipment (M8 & M9 paper, chemical alarms, etc.) before proceeding	
2	Get commander's approval	
3	Employ M256 or M256A1 Detector Kit	
4	If no chemical agent detected, have 1-2 soldiers unmask <u>in shade</u> for 5 minutes; remask for 10 minutes	
5	Check for symptoms; if none, others may unmask; remain alert for symptoms.	

UNMASK WITHOUT CHEMICAL AGENT DETECTOR KIT

STEP	ACTION	✓
1	Use all available detection equip- (M8 & M9 paper, chemical alarms, etc.) before proceeding	
2	Get commander's approval	
3	Have 1-3 soldiers hold breath & break seal of mask <u>in shade</u> for 15 seconds, eyes open	
4	Reseal, clear and check masks, wait 10 minutes	
5	Check for symptoms; if none, break seal of mask, take 2-3 breaths; repeat Step 4	
6	If no symptoms, have soldiers unmask for 5 minutes; remask for 10 minutes	
7	Check for symptoms; if none, others may unmask; remain alert for symptoms	

MOPP LEVELS

MOPP LEVEL	OVER-GARMENTS	OVERBOOTS	MASK/HOOD	GLOVES
0	Carried	carried	carried	carried
1	Worn open or closed	carried	carried	carried
2	Worn open or closed	worn	carried	carried
3	Worn open or closed	worn	worn	carried
4	Worn closed	worn	worn	worn

DETAILED TROOP DECON

STEP	ACTION	✓
1	Equipment decontamination	
2	Mask/hood decontamination and boot shuffle	
3	Remove over garment jacket-high jumper trousers	
4	Remove boot and glove	
5	Monitor (medical/contamination evaluation)	
6	Mask removal (vapor control line)	
7	Mask decontamination	
8	Re-issue point	

MOPP GEAR EXCHANGE

STEP	ACTION	✓
	*solo **buddy team assist	
1	Gear drop and decontaminate*	
2	Decontaminate hood and roll**	
3	Remove overgarment** jacket black side out trousers	
4	Remove overboots and step on jackets**	
	Remove CP gloves**	
5	Put on overgarment*	
6	Put on overboots*	
7	Put on CP gloves*	
8	Roll down and secure hood**	
9	Secure gear*	

MARK CONTAMINATED AREA: RADIOLOGICAL/BIO/CHEM

STEP	ACTION	✓
1	Locate/identify contaminated area	
2	For <u>radiological</u> use marker labeled ATOM. Print information so word "ATOM" faces toward you and in upright position: print dose rate (centigrays/hr); date/ time (state ZULU or local) of reading and detonation. If unknown print "UNKNOWN"	
3	For <u>biological</u> use marker labeled BIO; for <u>chemical</u> use marker labeled GAS. Use same procedures as above, stating type of agent, if known	
4	Position markers so information faces away from contaminated area	

MARK CONTAMINATED AREA: RADIOLOGICAL/BIO/CHEM

STEP	ACTION	✓
5	Attach markers so they can be seen from all routes through area; ensure each is visible from previous marker.	
6	Place ATOM markers at locations where dose rate measures 1 centi-gray/hr (cGy/hr) or more	

Notes:

PREPARE FOR NBC ATTACK/ PROTECT AGAINST ELECTROMAGNETIC PULSE

STEP	ACTION	✓
1	Ensure ALL items are covered or dug in when not in use	
2	Park vehicles with air vents away from winds; close hatches, doors, etc.	
3	Protect electronic equipment against EMP by disconnecting antennas and spare equipment; shield with metal	
4	Use highest frequency possible; never use commercial power. Keep cable and wire short; bury 18"	
5	Use remote sets only when required; use common ground for all equipment; insulate antenna guy lines	

SUPERVISE RADIATION MONITORING

STEP	ACTION	✓
1	List grid coordinates of central point in area	
2	Tell IM-174/AN/VDR-2 operator to take readings from central point hourly; check that operator uses IM-174/AN/VDR-2 correctly	
3	Have operator report readings to you immediately; use NBC-4 report	
4	Take continuous readings if reading is 1 or more cGy/hr; fallout warning received or nuclear burst seen; if moving to another location	
5	Check hourly when reading drops below 1 cGy/hr	

USING A DOSIMETER

STEP	ACTION	✓
1	Hold viewing end of dosimeter up to your eye, pointing toward light but not directly into the sun. An IM93 must be held parallel to the ground.	
2	Point where vertical hairline crosses scale is total amount of radiation received in cGy	
3	Report the number of cGy to your commander	

Notes:

COLLECT/REPORT TOTAL RADIATION DOSE

STEP	ACTION	✓
1	Turn in for recharging any dosimeter that does not read 0; recharge dosimeters daily	
2	Have soldiers who perform duties in unit's area wear dosimeters	
3	Collect readings from soldiers at the same time, at least once daily; ensure readings are accurate	
4	Add reported readings together; divide by number of readings	
5	Round up to nearest 10 and report reading to commander	

PRINCIPLES OF FIRE SUPPORT PLANNING/COORDINATION

ITEM	PRINCIPLE	✓
1	Plan early and continuously	
2	Consider all available resources and means of fire support: mortars, artillery, attack helicopters, or close air support (CAS)	
3	Select most effective asset and avoid duplication-check with higher	
4	Provide flexibility and safe fires	
5	Insure continuous targeting - likely, known and suspected enemy locations	
6	Before LD, LD to OBJ, on OBJ, beyond OBJ	
7	Use lowest echelon possible	

CALL FOR FIRE

STEP	DESCRIPTION
	STEPS 1-3 ARE REQUIRED
1	Observer ID and warning order: Adjust fire Fire for effect (FFE) Suppress (Target #) Immediate suppression (Grid)
2	Target location methods Grid - 6 digit grid/direction Polar - direction, distance Shift from a known point - direction to target, add or drop, left or right (direction is always from observer to target)
3	Target description (SNAP) Size/shape Nature/nomenclature Activity Protection

CALL FOR FIRE

STEP	DESCRIPTION
4	Method of engagement Type of adjustments Danger close Trajectory, Ammunition Distribution
5	Method of fire and control At my command/Cannot observe Time on target Continuous/coordinated illum Cease loading Check firing/Continuous fire Repeat
6	Refinement & end of mission Correct, record, report battle damage assessment

CALL FOR FIRE CARD

(STEPS 4 & 5 ARE OPTIONAL)

ID:

STEP 1

WARNING ORDER: AF / FFE / S / IS POLAR / SHIFT (GRID)

.....

LOCATION: (POLAR) DIR DIS

(SHIFT) DIR

L/R +/-

STEP 2

(GRID)

DESCRIPTION:

STEP 3 STEP 4 STEP 5

METHOD OF ENGAGEMENT:

METHOD OF CONTROL:

* DO NOT SAY WORDS IN PARENTHESES

MORTAR/ARTILLERY CAPABILITIES

NAME	RANGE	TYPE
60mm/M224	70-3500	HE WP ILLUM
81mm/M29A1	70-4790	HE WP ILLUM
81mm/M252	73-5600	HE WP ILLUM (red parachute)
120mm/M121	200-7200	HE SMOKE ILLUM

NAME	PLANNING RANGE	ROF - MAX/SUST
105MM/M102	11,500	10 RPM/3 RPM
105MM/M119	14,000	6 RPM/3 RPM
155MM/M198	18,100	4 RPM/1 RPM
155MM/M109	18,100	4 RPM/1 RPM
155MM/M109A6	23,500	6 RPM/1 RPM
Paladin	RAP	
227MM/MLRS	30KM	12 RDS/M
MLRS(ATACM)	100KM	2 missiles/18sec

AFV WEAPON CAPABILITIES EFFECTIVE RANGE (METERS)

	M240B 7.62 MM	M2 .50 CAL	25MM	MK19 40MM	105/120 MM	TOW MSL
HMMWV M996	900	1800		2200		3750
M113 APC*		1800		2200		3750
M2/3 BFV	900		2000 AP 3000 HE			3750
M1/M1A1 ABRAMS	900	1800			2800 3990	
M1A2 ABRAMS	900	1800			1828 HE 3500 AP	
M60A3	900	1800			1700	
M1064A3		1800			7200	
STRYKER*	900	1800	2000 AP 3000 HE	2200		3750

*Based on variant or use

TARGET ACQUISITION

ITEM	SIGNATURE	✓
1	Soldiers - trash, damaged vegetation, noise	
2	Tracked vehicles - fuel, smoke, noise	
3	Antitank weapons - noise, wires, vapor trails, flash	
4	Artillery - noise, smoke, flash	
5	Aircraft - noise, glare, vapor trails, dust	
6	Mines and obstacles - strange material, tripwires, loose/ disturbed dirt, tactical barbed wire	

ATTACK HELICOPTER CAPABILITIES

NAME		WEAPON	RANGE M
AH/MH-6	Little Bird	7.62 minigun 2.75" FFAR 30mm Cannon Hellfire ATAS	1000 7000 4000 8000 8000
AH-1G	Cobra	7.62 minigun 2.75" FFAR TOW	1000 7000 3750
AH-1S	Cobra	2.75" FFAR TOW 20mm Cannon	7000 3750 1500
OH-58D	Kiowa Warrior	2.75" FFAR 30mm Cannon Hellfire ATAS 12.7mm HMG	7000 4000 8000 8000 1500
AH-64A/D	Apache	2.75" FFAR 30mm Cannon Hellfire	7000 4000 8000
ATAS - Air-to-air Stinger HMG - Heavy machinegun			

ARTILLERY COUNTERFIRE

SHELREP - MORTREP - BOMBREP

A	Call sign
B	Coordinates of observer
C	AZ to flash or sound
D	Time shelling started
E	Time shelling ended
F	Coordinates of shelled areas
G	Number of guns
H	Nature of fire
I	Number, type and caliber of rounds
J	Flash-to-Bang-Time
K	Damage

SUPPLIES AND LOGISTICAL SERVICES











ITEM	PRINCIPLE	✓
1	Chain of command plans for supply status and equipment for fighting; 1SG directs company logistics services; PSG coordinates/supervises platoon maintenance with 1SG	
2	PLT logistics includes long and short term supply/transportation/maintenance	
3	PSG coordinates/supervises by getting requests for supplies/equipment from squad leaders and PLT LDR; reviews/consolidates list; and passes to 1SG or supply SGT	
4	PSG must maintain status of supplies and equipment in PLT, monitors requests, reports to PLT LDR	

PRECOMBAT CHECKS - MECH		
ITEM	ACTION	✓
1	Complete prepare to fire weapons checks	
2	Complete preops PMCS; resolve problems	
3	Load vehicles/rucks per load plans	
4	Clean/function check individual and crew served weapons	
5	Top off vehicles	
6	Stow basic load of Classes I & V	
7	Fill canteens, water and oil cans as needed	
8	Index battlesights	
9	Check radio frequency and operation if authorized.	
10	Check speech security equipment and operation if authorized	
11	Check personnel; brief mission	
12	Rehearse	

PRECOMBAT CHECKS - LIGHT

ITEM	ACTION	✓
1	Leaders inspect equipment and camouflage	
2	Packing list checked	
3	Compasses, maps present	
4	Communications check	
5	Rations drawn	
6	Weapons test fired	

Notes:

CLASSES OF SUPPLY		
CLASS	DESCRIPTION	SYMBOL
I	Rations	
II	Expendables	
III	POL	
IV	Barrier material	
V	Ammunition	
VI	Sundry	
VII	Major end items	
VIII	Medical	
IX	Repair parts	
X	Material to support nonmilitary programs	

INTEGRATION MATRIX- INDIVIDUAL WEAPONS

Accessory	M16A2	M16/ M203	M4A1	M4/ M203	M24
AN/PAQ-4B/C	✓	✓	✓	✓	
AN/PAS-13,TWS	✓				
AN/PEQ-2A	✓				
AN/PVS-4(A)	✓	✓	✓	✓	
AN/PVS-10,SNS					✓
AN/PVS-14					
AN/TVS-5	✓				
M68, CCO	✓		✓		
M145,MGO					
BIS			✓	✓	
MILES	✓	✓	✓	✓	✓
AN/PSX-1	✓	✓	✓	✓	

Notes: When mounting the AN/PAQ-4B/C to the M203 the grenadier must first have the Quadrant Sight Removed.

CCO - Close Combat Optic

MGO- Machinegun Optic

BIS - Back-up Iron Sight

INTEGRATION MATRIX- CREW SERVED WEAPONS

Accessory	M249	M60	M240B	M2	MK19
AN/PAQ-4B/C	✓	✓	✓		
AN/PAS-13,TWS	✓	✓	✓	✓	✓
AN/PEQ-2A	✓	✓	✓	✓	✓
AN/PVS-4(A)	✓	✓	✓		
AN/PVS-10,SNS					
AN/PVS-14					
AN/TVS-5				✓	✓
M68, CCO					
M145,MGO	✓	✓	✓		
BIS					
MILES	✓	✓	✓	✓	
AN/PSX-1	✓		✓	✓	✓

1. Final configuration for the M60 and M240B will be w/the AN/PEQ-2A, however, the AN/PAQ-4B/C may be used if the AN/PEQ-2A is unavailable
2. The MGO will be used on the M249 only when it is employed in the light machine gun role
3. The AN/PSX-1 will replace the AN/PAQ-4B/C once fielded

ELECTROMAGNETIC COUNTER-COUNTERMEASURES

1	To determine if you are being jammed, disconnect antenna. If noise stops, then starts again when antenna is reconnected, suspect jamming. If noise does not stop, check radio malfunction.
2	If you are being jammed:
	Continue to transmit on highest power setting
	Relocate to mask jamming signal with terrain
	Use directional antenna
	Turn squelch off
	NEVER acknowledge jamming
	Move after transmission
3	MIJI Report

RADIO TROUBLESHOOTING

STEP	ACTION	✓
1	Check frequency setting	
2	Check battery: charge-new	
3	Check antenna: upright-clear	
4	Check ALL connections from battery through to antenna: clean-dry-tighten	
5	Check ALL power and position switches	
6	Replace CVC or handset	
7	Check distance/position for terrain mask; move if needed	
8	Check antenna top section: repair if broken-replace if lost	

MESSENGER BRIEFING

- 1. Name/location of person to receive message.**
- 2. Route to follow.**
- 3. Danger points to avoid.**
- 4. Speed required.**
- 5. Is answer required?**
- 6. Action if message cannot be delivered.**
- 7. Special instructions.**
- 8. Content (if required).**
- 9. Report destination at OP/lines.**
- 10. Challenge/Password.**

PHONETIC ALPHABET

A	ALPHA	al-fah
B	BRAVO	brah-voh
C	CHARLIE	char-lee
D	DELTA	dell-tah
E	ECHO	eck-oh
F	FOXTROT	foxs-trot
G	GOLF	golf
H	HOTEL	hoh-tell
I	INDIA	in-dee-ah
J	JULIETT	jew-lee-ett
K	KILO	key-loh
L	LIMA	lee-mah
M	MIKE	mike
N	NOVEMBER	no-vem-ber

PHONETIC ALPHABET

O	OSCAR	oss-car
P	PAPA	pah-pah
Q	QUEBEC	key-beck
R	ROMEO	row-me-oh
S	SIERRA	se-air-rah
T	TANGO	tang-goh
U	UNIFORM	unee-form
V	VICTOR	vik-tor
W	WHISKEY	wiss-key
X	XRAY	ecks-ray
Y	YANKEE	yang-kee
Z	ZULU	zoo-loo

INSTALL/REMOVE HASTY PROTECTIVE MINEFIELD

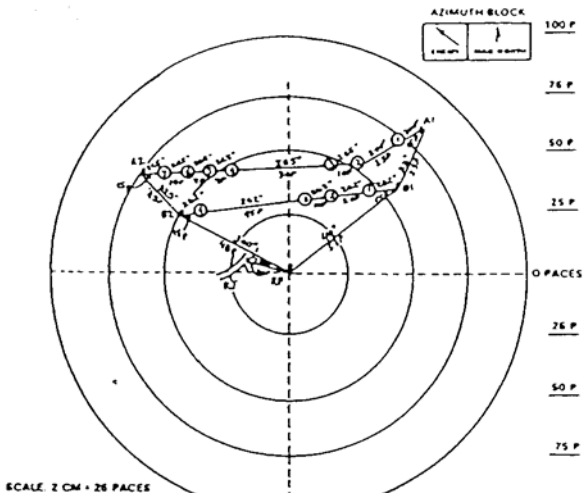
STEP	ACTION	✓
1	Report intention/get authorization to lay minefield	
2	Recon for best sites, under unit observation/fire, integrating with other defense plans	
3	Report initiation of field; place in irregular pattern on avenues of approach	
4	Record Field on DA 1355-1-R	
5	Arm mines - from enemy side to friendly side	
6	Report completion of field; warn adjacent units	
7	Retain DA 1355-1-R as long as unit/field stay in place; if field abandoned forward to Cdr	

INSTALL/REMOVE HASTY PROTECTIVE MINEFIELD

STEP	ACTION
8	Removal: If DA 1355-1-R is not available, treat the field as enemy field and use breaching techniques
9	Remove mines in order using azimuths and distances from DA 1355-1-R

Notes:

DA FORM 1355-1-R



TABULAR BLOCK				IDENTIFICATION BLOCK	
HOW	TYPE	ACTUATION	SHORE NUMBER	UNIT	LOC. PL. A.C. 1-400 100 INF BN
A	ADJUT	TRIP MINE	1, 2, 3.	REF PT	CONCRETE POST BY ROAD
B	ADJUT	PRESSURE	3, 4, 5, 6.	REMARKS	POINTS A1 & A2, B1 & B2 ARE MARKED WITH 2" x 2" SIKES
C	ADJUT	TRIP MINE	1	MAP & SHEET NO.	TALBOT 5560
D	ADJUT	CONTROLLED	2, 3, 4.	NAME OF OIC	LT. ALLAN
REMARKS LAND MARK IS ROAD JUNCTION AT RA 12343409				Signature	LT. ALLAN
				NAME REMOVED	
				NAME TRANSFERRED	

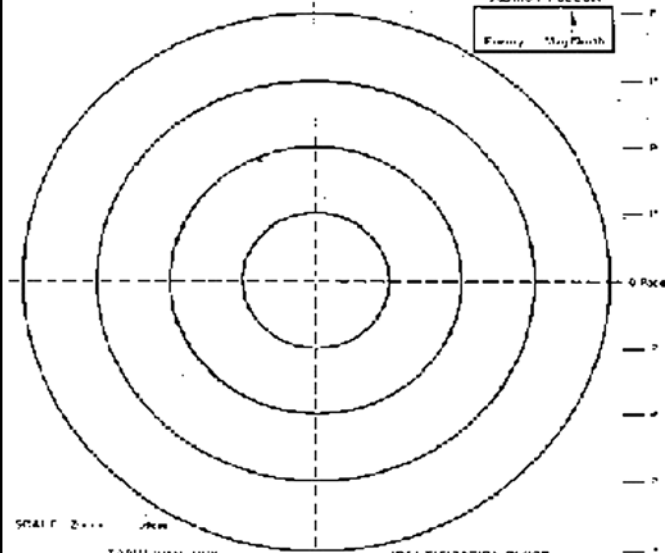
DA FORM 1355-1-R, 1 JULY 75, REPLACES DA FORM 1355-7, 1 MAR 68, WHICH IS OBSOLETE

DA FORM 1355-1-R

HASTY PROTECTIVE MINEFIELD RECORD

22MUT4 BLOCK

From	May 2008
------	----------



SPAIN 2000 2000

TABLE 2.10.10.10. UCM

[illegible]

IDENTIFICATION BLOCK

NAME	
SURNAME	
PARENTS	
DATE OF BIRTH	
PLACE OF BIRTH	
CURRENT ADDRESS	
PREVIOUS ADDRESSES	
EDUCATION	
OCCUPATION	
MILITARY SERVICE	
REMARKS	

U.S. DEPARTMENT OF AGRICULTURE

BREACHING AND CLEARING MINEFIELDS

STEP	ACTION	✓
1	Suppress enemy covering obstacles	
2	Obscure area with smoke	
3	Secure near side	
4	Reduce obstacle-blow or probe lane through	
5	Secure the far side	
6	Blow marked mines in place (time permitting)	
7	Mark cleared lane	
8	Move unit through obstacle	

NONELECTRIC FIRING SYSTEM

STEP	ACTION	✓
1	Determine length of fuse needed	
	Cut & discard 6" length; cut off 3' length to determine burn rate	
	Light fuse end and list time it takes to burn	
	Compute burn rate per foot (time/burn rate)	
2	Determine amount of explosive needed	
3	Cut fuse to proper length and pass end through priming adapter	
4	Attach M60 fuse igniter: Unscrew fuse holder cap, press shipping plug into igniter, rotate and remove plug, insert fuse in fuse hole, tighten cap	

NONELECTRIC FIRING SYSTEM

STEP	ACTION	✓
5	Attach blasting cap to fuse	
	Inspect open end, remove debris by tapping or shaking gently	
	Hold fuse vertically with square end up	
	Slip cap down over fuse so cap and fuse are in contact	
	Turn cap out and away from your body and crimp cap at point 1/8 to 1/4" from open end	
6	Pull pin to detonate charge	

Notes:

NONELECTRIC/ELECTRIC PRIMING OF DEMO BLOCK

Note: Prime by wrapping demolition blocks with detonating cord, by inserting knot of detonating cord into plastic explosive, by lacing cord through dynamite, 40-lb cratering charges or shaped charges

STEP	ACTION	✓
1	Prime with threaded cap well & priming adapter:	
	<u>Non-electric</u> inspect cap well, insert cap with fuse into cap well, screw in adapter	
	<u>Electric</u> after inspection, fasten free ends of cap lead wire to firing wire & pass thru adapter slot, pull cap into place, then finish as above	

NONELECTRIC/ELECTRIC PRIMING OF DEMO BLOCK

STEP	ACTION	✓
2	Prime with threaded cap well without priming adapter: <u>Non-electric</u> inspect cap well, wrap & tie string around block, leaving excess, insert blasting cap with fuse into cap well - use loose string to keep cap from separating from block.	
	<u>Electric</u> after inspection, fasten free ends of cap wire to firing wire, pass lead wires through adapter slot & insert electric cap into cap well, tie lead wires around block, allowing slack.	
3	Prime without threaded cap well or priming adapter: <u>Non-electric & electric</u> make hole with M2 crimpers, then follow step 2.	

CLEAR NONELECTRIC/ELECTRIC MISFIRES

Note: If possible, misfire should be cleared by soldier who placed the charge

STEP	ACTION	✓
1	NON-ELECTRIC - Wait 30 minutes after misfire before moving to charge	
2	ELECTRIC - If dual primed with non-electric system, wait 30 minutes	
	Check firing wire connections, make 2-3 more attempts to fire; disconnect firing wire from blasting machine and shunt wires; check entire system for breaks/shorts	
3	UNTAMPED - Without moving or disturbing misfired charge, detonate 1-pound charge at side	
	TAMPED - Dig within 1 foot of misfired charge; detonate 2-lb charge on top of misfired charge	

ELECTRIC FIRING SYSTEM

STEP	ACTION	✓
1	Check firing wire with M51 test set or galvanometer; lay out from charges to firing position	
2	Test electric blasting cap; twist free wire ends together	
3	Move to firing point and test entire circuit	
4	Test blasting machine/depress handle	
5	On order, connect lead wires to 2 blasting machine posts and detonate charge	

Notes:

RULES OF ENGAGEMENT

ROE - Written directives explaining circumstances and limitations under which US forces initiate and/or continue combat engagement with hostile forces.

GENERAL RULES

- 1. You have the right to defend yourself against attacks or threats of attack.**
- 2. Hostile fire may be returned effectively and promptly to stop a hostile act.**
- 3. US forces use the minimum force necessary and proportional to the threat (measured response: degree of force should conform to the circumstance of the incident).**
- 4. You may not seize the property of others to accomplish your mission.**
- 5. Detention of civilians is authorized for security reasons or in self-defense.**

AREA ASSESSMENT CHECKLIST

ITEM	DESCRIPTION	✓
1	Where are refugees from (size and area of population)?	
2	What is food and water status?	
3	What is overall medical status?	
4	What civilian organizations exist? Who are the leaders?	
5	What civil/military organizations exist? Who are the leaders?	
6	What organization/leadership do most of the people support?	
7	What UN relief agencies are in operation?	
8	What is the security situation?	

AREA ASSESSMENT CHECKLIST

ITEM	DESCRIPTION	✓
9	What commercial or business activities are there?	
10	Which groups are most in need?	
11	What civil projects would leaders like to see accomplished?	
12	How many families are involved?	
13	What food is available and what does it cost?	
14	What skilled labor and services are available?	
15	What is the size and composition of the transient population?	

CHECKPOINT/ROADBLOCK PIR CHECKLIST

ITEM	TO BE REPORTED	✓
1	Number and type of vehicles stopped; markings, license number, signs	
2	Number of passengers per vehicle; ages, genders	
3	Type and quality of cargo	
4	Point of origin & destination	
5	Stated reason for passenger travel	
6	Any weapons found?	
7	Any passenger reports of sightings of weapons, technical equipment or bandits	

CHECKPOINT/ROADBLOCK PIR CHECKLIST

ITEM	TO BE REPORTED	✓
8	Condition of passengers (general health, dress, attitude)	
9	Anything unusual observed/ reported by passengers	

Notes:

AIRCRAFT TROOP COMMANDER BRIEFING

1. Loading procedures _____

2. Bump plan (for individuals/loads) ____

3. Use of safety belts _____

4. Preflight safety inspection of troops _

5. In-flight procedures _____

6. Downed aircraft procedures _____

7. Offloading procedures _____

8. Movement from PZ/LZ/EZ _____

SAFETY BRIEFING CHECKLIST

ITEM	ACTION	✓
1	Wear ID tags, earplugs, helmets, when in/near aircraft	
2	Never approach rotary wing aircraft from rear or front; always from sides	
3	Approach/depart in a crouch on down slope side to ensure clearance	
4	Keep sleeves rolled down	
5	Carry weapons without bayonet, safety on, bolt closed, chamber empty, muzzle DOWN	
6	Bend or tie down radio antennas	
7	Fasten seatbelts & leave buckled until crew chief signals exit	
8	Maintain written manifest (unit, rank, full name, SSN) separate from aircraft	

REVERSE PLANNING SEQUENCE

ITEM	ACTION	✓
1	Ground tactical plan	
2	Landing plan	
3	Air movement plan	
4	Loading plan	
5	Staging plan	

Notes:

GROUND TACTICAL PLAN CONSIDERATIONS

ITEM	CONSIDERATION	✓
1	Missions of all force elements and methods of employment	
2	Zones of attack, sectors, or areas of operations with graphic control measures	
3	Task organization to include command relationships	
4	Location and size of reserves	
5	Fire support to include graphic control measures	
6	Combat service support to include resupply, evacuation, and plans to sustain the force	

LANDING PLAN CONSIDERATION

ITEM	CONSIDERATION	✓
1	Supports ground tactical plan	
2	Availability/location/size of LZ	
3	Force is vulnerable during landing	
4	Elements must land with tactical integrity	
5	Inform all troops if landing direction changes	
6	Force must land prepared to fight in any direction	
7	Offer flexibility for options in scheme of maneuver	
8	Plan supporting fires in and around each LZ for next lifts and on objective	
9	Provide for resupply & medical evacuation by air	

LANDING ZONE SELECTION CRITERIA

ITEM	CRITERIA	✓
1	Location (based on METT-TC) and capacity (size)	
2	Alternates (one per primary LZ)	
3	Enemy disposition/capabilities	
4	Cover/concealment	
5	Obstacles	
6	Identification from air	
7	Approach/departure routes	
8	Weather/surface/slope	

AIR ASSAULT PZ/LZ PLANNING CONSIDERATIONS

ITEM	CONSIDERATION	✓
1	PZs: Minimum movement; access to support assets; masked from enemy observation; outside the range of enemy artillery	
2	LZs: Locate on, close by, or some distance away from the objective (based on METT-TC); size determines how much combat power can be landed; deny enemy observation, acquisition, and ADA; land on enemy side of obstacles; avoid exposing aircraft.	
3	Reduced visibility may limit or preclude use	

EXTRACTION LOADING PLAN REQUIREMENTS

ITEM	REQUIREMENT	✓
1	PZ locations, primary & alternate	
2	PZ security	
3	PZ control party organization & location	
4	Fire support	
5	Sequence of extraction: main body, PZ control party, security force	
6	Movement to PZ: route & order	
7	Loading priorities	

NOTE: PZ time is CRITICAL factor

LEADER DUTIES IN AIR ASSAULT OPERATIONS

ITEM	DUTY
1	Senior person in each lift located with air mission commander for C3 (command/control/communications)
2	Set up PZ, supervise marking/clearing of obstacles w/PZCO
3	Brief all chalk leaders
4	Supervise conduct of rehearsals
5	Supervise security, movement of personnel & equipment, placement of chawks and slingloads on PZ
6	Devise and disseminate bump plan
7	PZ Control Officer (PZCO)/control party: Ensure PZ is cleared; plan/initiate fire support and security; establish commo nets; lead aircraft signalman responsible for visual landing guidance for lead aircraft

CHALK LEADER DUTIES/ PLATOON AIR ASSAULT

ITEM	DUTY	✓
1	Brief chalk and attachments on loading plan, tasks and positions inside aircraft	
2	Ensure soldiers maintain assigned areas for local security	
3	Supervise loading of personnel; ensure all in assigned positions and buckled in	
4	Keep current on location with map and crew	
5	Ensure personnel exit quickly, rush to safe distance (10-15m), assume prone position and prepare to return enemy fire. Ensure lights/panels emplaced	

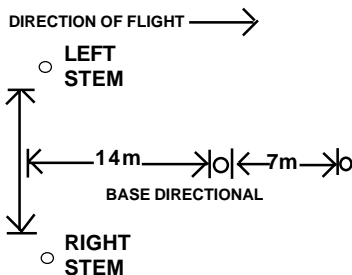
SET UP A HELICOPTER LANDING SITE

STEP	ACTION	✓
1	Select and secure landing site; size depends on number and type of helicopters	
2	Ground slope of site must be no more than 15 degrees. If less than 7 degrees, land upslope; if 7-15 degrees, land sideslope	
3	Ensure surface conditions free of rocks and debris; avoid dust, sand and snow	
4	Ensure ground firm enough to keep helicopter from bogging down during loading/unloading	

SET UP A HELICOPTER LANDING SITE

STEP	ACTION	✓
5	Remove obstacles on approach/ departure ends and clearly mark obstructions that cannot be removed. Ensure sufficient runway to clear obstacles, 10:1 horizontal clearance to vertical obstruct	
6	Mark landing site and touchdown point based on mission, capabilities and situation. Use smoke, signalman, lights; at night mark touchdown point with inverted "Y" composed of 4 lights.	

NIGHT MARKING OF PZs AND LZs



NOTES: The aircraft touch down point will be midpoint on the legs of the Y. If more than 1 will land in the same PZ or LZ, add 1 more light for each. For OH-, UH-, and AH-aircraft, mark each additional landing point with 1 light at the exact point each aircraft is to land. For CH-aircraft, mark each additional point with 2 lights placed 10mm apart and aligned in the aircraft direction of flight.

EVALUATE A CASUALTY/FIRST AID

STEP	ACTION	✓
1	Clear airway	
2	Bleeding - stop	
3	Cover and protect wound	
4	Prevent or treat shock	
5	Check for fractures, burns, concussion	
6	Avoid moving suspected neck or back injuries	
7	Do not give water to abdominal wound except to moisten lips	
8	Seek medical aid	

Notes:

SHOCK - SYMPTOMS/FIRST AID

STEP	ACTION	✓
1	SYMPTOMS: Look for anxiety, agitation, confusion, pale, clammy, blotchy or bluish skin around mouth, sweaty but cool skin, nervousness, thirst, nausea, loss of blood, rapid shallow breathing	
2	TREATMENT: Move to covered area. Lay patient on back, elevate feet, and loosen clothing. Keep warm or cool depending on weather	
3	Calm and reassure patient	
4	Do NOT give casualty anything to eat or drink	
5	Seek medical aid	

Notes:

HEAT EXHAUSTION/HEAT CRAMPS

STEP	ACTION	✓
1	SYMPTOMS: Look for moist pale, clammy wet skin, muscle cramps, sweating & thirst, headache and dizziness, faintness, weakness and nausea	
2	Move patient to shade, loosen clothing. If patient conscious, have casualty slowly drink at least one canteen of cool water. Watch for continued symptoms	
3	Seek medical aid if unconscious	

Notes:

HEAT STROKE/SUN STROKE

**NOTE: This is a medical EMERGENCY
and potentially fatal**

STEP	ACTION	✓
1	SYMPTOMS: Look for hot, dry, bright pink skin, high temperature, dizziness, nausea, fast pulse, delirium, no sweating.	
2	TREATMENT: Lower body temperature IMMEDIATELY by immersion in water, fanning, use ice if available. Move to cool place. Remove or loosen clothing. Have casualty slowly drink at least one canteen of cool water.	
3	For heat stroke, pour water over casualty, fan, massage extremities, and elevate legs.	
4	Seek medical aid; evacuate as URGENT ; continue to cool.	

FROSTBITE

STEP	ACTION	✓
1	SYMPTOMS: Look for redness, or grey or waxy skin, frequently numb or experiencing loss of sensation, itchiness, blisters, areas of skin that are unnaturally firm, or tender and swollen.	
2	Symptoms are progressive. First, sudden whitening of skin, followed by redness or greyish coloring. Finally, blisters, pale yellowish, waxy looking skin.	
3	TREATMENT: Shelter victim; keep warm with clothing or body heat; insulate from ground. Remove clothing from affected part; wrap loosely in dry sterile dressing. Do NOT massage or rub area or break blisters or further injury may result.	
4	Seek medical aid; treat as litter casualty	

HYPOTHERMIA/COLD WEATHER INJURY

STEP	ACTION	✓
1	SYMPTOMS: Look for lowered body temperature, pale cold skin, violent uncontrolled shivering, lack of coordination, memory, loss, irrationality, lethargy, slurred speech, and poor muscle coordination.	
2	TREATMENT: Move victim to sheltered area, cover and rewarm body evenly. Gradually give conscious patient warm liquids. Replace wet clothing with dry if possible; use sleeping bag to insulate from ground. Keep patient awake and drinking fluids. Do not rub or give alcohol. Start treatment before evacuation; evacuate when stable.	
3	Seek medical aid.	

REQUEST ARMY AIR MEDEVAC

NOTE: Send secure or encrypt all items.

LINE	ITEM	✓
1	Location of pick-up site	
2	Pick-up site radio frequency, call sign, and suffix	
3	# of patients by precedence (urgent, priority, routine)	
4	Special equipment required	
5	# of patients by type (litter, ambulatory)	
6	Security of pick-up site	
7	Method of marking pick-up site	
8	Patient nationality and status	
9	NBC considerations	

CONTINUOUS OPERATIONS (CONOPS) PLANNING

STEP	ACTION	✓
1	Set up and ENFORCE an eating and sleeping schedule for ALL personnel	
2	Include OPORD and movement times in warning orders so sleep can be scheduled	
3	Keep orders simple and clear; insist on briefbacks	
4	Do not permit sleeping in or near vehicles; move to safe place	
5	Recognize symptoms of sleep loss: not alert, slow response time, forgetful, mood change, short attention span, irritable	

CONTINUOUS OPERATIONS (CONOPS) PLANNING

STEP	ACTION	✓
6	Recognize symptoms of stress: frustration, anger, tired even after rest, physical problems interfering with eating and sleeping, lack of confidence, forgetfulness	
7	Situation permitting, deal with stress. Give immediate attention, reassurance; rest and food. Pair with buddy	
8	REINFORCE eating/sleeping schedules for all personnel, especially leaders	

FLUID REPLACEMENT GUIDELINES

HEAT CATEGORY	WBGT INDEX (°F)	EASY WORK		MODERATE WORK		HARD WORK	
		Work/ Rest	Water p/hour	Work/ Rest	Water p/hour	Work/ Rest	Water p/hour
1	78-81.9	No Limit	1/2 qt	No Limit	3/4 qt	40/20 min	3/4 qt
2	82-84.9	No Limit	1/2 qt	50/10 min	3/4 qt	30/30 min	1 qt
3	85-87.9	No Limit	3/4 qt	40/20 min	3/4 qt	30/30 min	1 qt
4	88-89.9	No Limit	3/4 qt	30/30 min	3/4 qt	20/40 min	1 qt
5	+90	No Limit	1 qt	20/40 min	1 qt	10/50 min	1 qt

1. Applies to average acclimated soldier wearing BDUs, Hot Weather.
2. Work/rest times & fluid volumes will sustain performance & hydration < 4 hours.
3. Individual needs will vary + or - 1/4 quart per hour.
4. Hourly fluid intake should not exceed 1 1/2 quarts or 12 quarts over 24 hours.
5. Rest means minimal activity (sitting or standing) in the shade.
6. Wearing MOPP gear or body armor adds 10°F to WBGT Index.
7. Overweight/dieting/past heat casualty soldiers are more prone to heat injuries.

VEHICLE RECOVERY PROCEDURE CHECKLIST

**DANGER: Ensure unprotected troops
at safe distance**

ITEM	PROCEDURE	✓
1	Recon the area	
2	Estimate the situation	
3	Calculate the ratio (resistance divided by effort)	
4	Obtain resistance	
5	Verify solution	
6	Erect rigging	
7	Recheck rigging	
8	You are ready	

Notes:

VEHICLE RECOVERY FUNDAMENTALS

ITEM	FUNDAMENTALS
1	Load resistance: <ul style="list-style-type: none">• Overturned - 1/2 vehicle weight• Nosed (grade) - vehicle weight• Wheel deep - vehicle weight• Fender deep - double vehicle wgt• Turret deep - triple vehicle weight
2	Mechanical advantage: divide load resistance by available effort (capacity of winch)
3	Rigging: attach tow cables to TOW HOOKS, not lifting eyes or towing pintle
4	Safety: <ul style="list-style-type: none">• Cross TOWING cables to prevent tangling & keep vehicles aligned• Position hook with throat (open part) UPWARD

VEHICLE RECOVERY FUNDAMENTALS

ITEM	FUNDAMENTALS
4	Safety (continued): <ul style="list-style-type: none">• Use heavy leather palmed gloves when handling cables/wire ropes• Place safety keys in hooks/shackles/equipment requiring them• Do NOT apply loads suddenly• No smoking/open flame if fuel or oil has spilled

Notes:

ENGAGING AIRCRAFT

NOTE: In the absense of unit SOPs

STEP	ACTION
1	Engage all attacking aircraft and helicopters positively identified as hostile
2	Engage when friendly ADA units are engaging enemy in your area
3	Engage enemy jet aircraft not attacking your position only after ordered to fire

WEAPONS CONTROL STATUS

Weapons FREE	Fire at any aircraft not identified as friendly
Weapons TIGHT	Fire only at aircraft POSITIVELY identified as HOSTILE
Weapons HOLD	Fire only in self-defense

AIR DEFENSE WARNING

WARNING	MEANING
RED	Attack is IMMEDIATE or IN PROGRESS
YELLOW	Attack is PROBABLE
WHITE	Attack is improbable

LOCAL AIR DEFENSE WARNING (LADW)

WARNING	MEANING
DYNAMITE	Aircraft inbound & attacking; response is immediate
LOOKOUT	Aircraft in area of interest but not threatening OR inbound but there is time to react
SNOWMAN	No aircraft pose threat at this time

ENGAGEMENT/LEAD DISTANCES

**High performance aircraft;
Two football field "lead";
fire on automatic**

**Low performance/rotary wing:
one half football field "lead";
fire on automatic**

**Aircraft coming directly at you:
fire full automatic at nose**

Notes:

PASSIVE AIR DEFENSE MEASURES

ITEM	ACTION	✓
1	Use covered and concealed routes and stationary positions	
2	Cover glass and camouflage vehicles; do not skyline or outline; do not look at unless firing	
3	Maintain COMSEC & air guards	
4	Specify visual and audible air warning signals in unit SOP	
5	Enforce noise, light, and litter discipline	

Notes:

BUILT-UP AREA FIGHTING PRINCIPLES

ITEM	PRINCIPLE	✓
1	Attack rapidly, in depth, to dominate killing areas, use smoke	
2	Clear each house thoroughly/consolidate	
3	Keep equipment light	
4	Plan for casualty/EPW/armored vehicle evacuation	
5	Clear streets, houses, buildings and basements	
6	Mark cleared structures	
7	Wear body armor, use armored vehicles as transports/moving shield, sand-bag/harden thinskin vehicles	
8	Employ shock-producing weapons to reduce enemy strongpoints	
9	Employ expertise/equipment of combat engineers	

ATTACK AND CLEAR A BUILDING

STEP	ACTION	✓
1	Organize unit into assault force and support force	
2	Designate special wpns/teams	
3	Support force ISOLATES building from overwatch position, covering smoke and fire	
4	Support force suppresses enemy in building and near by to cover assault force's move	
5	Support force resupply ammunition, replace personnel, evacuate wounded/EPWs	
6	Assault force ENTERS building at highest level possible to gain foothold or mouseholes into unexpected wall	
7	Assault force CLEARS building room-by-room, by grenade or burst of fire	
8	Assault force marks each room/each building when cleared	

ORGANIZE BUILDING DEFENSE

STEP	ACTION	✓
1	Select building(s) to defend by considering	
	Protection/dispersion from enemy weapons/flamability	
	Concealment	
	Fields of Fire	
	Observation	
	Covered routes	
	Building strength/dire hazard	
	Time available	
2	Position teams/vehicles	
3	Plan for/register indirect fires	
4	Select/prepare primary/alternate/supplementary positions for key dismounted weapons, escape route from building	

ORGANIZE BUILDING DEFENSE		
STEP	ACTION	✓
5	Prepare rooms in building(s)	
	Stockpile supplies	
	Establish CP/OPs	
	Set up wire commo lines	
	Cover floors with sand/dirt	
	Reinforce/camouflage positions	
6	Prepare outside of building(s)	
	Emplace mines/obstacles to cover deadspace/approaches/passages	
	Cover all mines/obstacles by observation and fire	
7	Inspect preparations	
Notes:		

PRINCIPLES OF THE LAW OF WAR

STEP	PRINCIPLE	✓
1	All US/NATO ammo & weapons are lawful; do not alter.	
2	Do NOT fake surrender, use enemy uniforms, booby trap personnel or use medical symbols to deceive.	
3	Attack only combat targets, using only mission essential firepower, avoiding needless destruction and unnecessary suffering.	
4	Non-combat targets include the following: those surrendering, captives, the sick, the wounded; medical personnel, medical vehicles and medical	

PRINCIPLES OF THE LAW OF WAR

STEP	PRINCIPLE	✓
	buildings; undefended civilian buildings and monuments.	
5	Provide for the humane treatment and protection of all captives & non-combatants.	
6	Disposition of property: tag and turn in captured or abandoned military property; safeguard valuable abandoned private property; do not loot.	
7	Adherence to the Law of War supports tactical and strategic mission goals. Identify and report all violations.	

HANDLING ENEMY PRISONERS OF WAR

ITEM	ACTION	✓
	Use the 5 "Ss"	
1	SEARCH- remove, tag & mark weapons, documents; return personal items, helmet, NBC gear	
2	SEGREGATE - by rank, sex, military, civilian	
3	SILENCE - no talking	
4	SPEED - from battle area	
5	SAFEGUARD - to prevent harm or escape	

Notes:

SPOT REPORT/SALUTE	
LINE	ITEM
1	Size
2	Activity
3	Location
4	Unit/Uniform
5	Time observed
6	Equipment

FIND UNKNOWN RANGE USING MIL RELATION "WORM" FORMULA

NOTE: For MIL Relation Formula, the width or length of the target (W) must be known.

STEP	ACTION
1	Measure the target width using binoculars' mil scale (m)
2	Divide target width in meters (W) by mil width (m) to find range (R)
3	Round R to nearest tenth; multiply by 1000 for range to target
4	Remember $R = \frac{W}{m}$

CONVERSION TABLE: US TO METRIC TO US

EXAMPLE: Multiply inches by 2.54 to get centimeters; multiply centimeters by 0.394 to get inches.

MULT	X	=	X	=
IN	2.54	CM	0.394	IN
FT	0.305	M	3.280	FT
YDS	0.914	M	1.094	YDS
MI	1.609	KM	0.621	MI
QTS	0.946	LTR	1.057	QTS
GAL	3.785	LTR	0.264	GAL
OZ	28.349	GMS	0.035	OZ
LBS	0.454	KG	2.205	LBS
MPG	0.245	KM/LTR	2.354	MPG
MPH	1.609	KM/HR	0.621	MPH

Fahrenheit to Celsius = $(F - 32) \times 5/9$

Celsius to Fahrenheit = $(C \times 9/5) + 32$

CONVERTING AZIMUTHS-GRID TO MAGNETIC/MAGNETIC TO GRID

STEP	ACTION
1	GRID TO MAGNETIC: (map to compass) for easterly G-M angle subtract G-M angle from grid azimuth; for westerly G-M angle add G-M angle to grid azimuth
2	MAGNETIC TO GRID: (compass to map) for easterly G-M angle add G-M angle to compass azimuth for westerly G-M angle subtract G-M angle from compass azimuth



Note: On G-M angle diagram, if conversion direction is to the Left, ADD; if conversion is to the Right, SUBTRACT
 LARS - left add right subtract



Easterly



Westerly

REDUCE RISK OF FRATRICIDE

ITEM	PRIMARY FACTORS
1	Mission and C2 High vehicle or wpns density Cdr's intent is unclear or complex Poor flank coordination Crosstalk lacking No habitual relationships
2	Enemy Weak intelligence or recon Intermingled with friendly
3	Terrain Obscuration or poor visibility Extreme engagement ranges Navigation difficulty Absence of recognizable features

REDUCE RISK OF FRATRICIDE

ITEM	PRIMARY FACTORS
4	Troops & Equipment High weapon lethality Unseasoned leaders or troops Poor fire control SOPs Incomplete rules of engagement Anxiety or confusion Failure to adhere to SOPs
5	Time Soldier and leader fatigue Inadequate rehearsals Short planning time

RISK MANAGEMENT

Risk Management is a process that assists decision-makers in reducing or offsetting risk and making decisions that weigh risks against mission benefits.

1 Risk Management is integrated into the military decision-making process (MDMP).

2 Key definitions:

Risk - A possible loss or negative mission impact stated in terms of probability and severity

Threat - Any source of danger to the force- enemy, condition, source, or circumstance with a potential to negatively impact mission accomplishment or degrade mission capability.

Probability - Estimate of the likelihood that a threat will impact on a mission

Severity - Consequence of an event in terms of injury, property damage, or other mission-impairing factor.

RISK MANAGEMENT

3 Risk severity categories:

- I **Catastrophic** - Cannot accomplish mission or failure; loss of major/mission critical system/equipment; deaths; major property/environmental damage; and unacceptable collateral damage.
- II **Critical** - Significant degraded mission capability; permanent disability; extensive damage to equipment/systems; significant damage to property/environment; major collateral damage.
- III **Marginal** - Degraded mission capability; injury/illness to personnel; and minor damage to equipment/ systems, property, or environment.
- IV **Negligible** - Little or no mission impact; minor injuries; slight system/equipment damage, but functional; & little or no property or environmental damage.

NOTE: Match w/probability categories on pg. 20-12 to complete matrix on pg. 20-15.

RISK MANAGEMENT

4 Probability categories and criteria

Frequent (A)	Occurs very often/ continuously during the mission
Likely (B)	Occurs several times/ at a high rate during the mission
Occasionally (C)	Occurs some times/ may occur over time/or may occur during the mission
Seldom (D)	Remotely possible/ could occur at some time during mission
Unlikely (E)	Can assume will not occur, but not impos- sible

NOTE: Match w/severity categories on page 20-11 to complete risk assessment matrix on page 20-15.

RISK MANAGEMENT STEPS

- | | |
|----------|--|
| 1 | <p><u>Identify Threats</u> - potential sources of danger. Consider all aspects of METT-TC:</p> <ul style="list-style-type: none">-length & nature (complexity, danger) of operations-factors of supervision (command & control, day/lim vis/night)-soldier experience levels, training status & condition-environment/weather (terrain, heat, cold, haze, dust, mud, fog, rain, snow, ice)-age & maintenance status of equipment-leader rest status & mission prep time |
| 2 | <p><u>Assess Threat</u> - determine cumulative effect on mission/objective considering probability of causing problems and severity of consequences; qualify risk as extremely high, high, moderate or low</p> |

RISK MANAGEMENT STEPS

- | | |
|----------|---|
| 3 | <u>Develop Controls</u> to eliminate or reduce risk of hazard - specify who, what, where, when & how, <u>determine residual risk</u> as controls are developed; CDR make decision whether to accept level of residual risk |
| 4 | <u>Implement Controls</u>; state how communicated & put into effect - SOP, safety briefings, rehearsal |
| 5 | <u>Supervise & evaluate</u>; Monitor, follow up, reevaluate plan, make adjustments, incorporate lessons learned |

NOTE: Use sample hazard risk assessment matrix on next page and categories of probabilities and severity from the previous pages to establish your own assessment.

RISK ASSESSMENT MATRIX

HAZARD PROBABILITY						
	Frequent	Likely	Occasional	Seldom	Unlikely	
S E V E R I T Y	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

S E V E R I T Y

ACRONYMS

A

AA	Assembly area/avenue of approach/ anti armor
ACE	Ammo, casualties, equipment
ADA	Air defense artillery
AFV	Armored fighting vehicle
AO	Area of operations
AP	Armor piercing
APC	Armored personnel carrier
AT	Antitank
ATACM	Army tactical missile system
AVP	Auxiliary vehicle power
AZ	Azimuth

B

BIS	Back-up iron sight
BFV	Bradley Fighting Vehicle (M2)
BMNT	Beginning morning nautical twilight
BN	Battalion
BP	Battle position

C

C2	Command and control
C3	Command/control/communications
cal	Caliber

ACRONYMS

C

CAS	Close air support
CCO	Close combat optic
cGy	Centigray
COA	Course of action
coax	Coaxial machinegun
COMSEC	Communications security
CONOPS	Continuous operations
CP	Command post
CQC	Close quarter combat
CS	Combat support
CSS	Combat service support
CVC	Combat vehicle crewman

D-E

Dir	Director
Dis	Distance
DTG	Date-Time-Group
DZ	Drop zone
EA	Engagement area
EENT	End of evening nautical twilight
EMP	Electromagnetic pulse
EN	Enemy
EPW	Enemy prisoner of war
EZ	Extraction zone

ACRONYMS

F-G-H

FEBA	Forward edge of battle area
FFAR	Folding fin aerial rocket
FPF	Final protective fires
FPL	Final protective lines
FR	Friendly forces
FRAGO	Fragmentary order
FSO	Fire support officer
G-M	Grid-Magnetic
HE	High explosive

I-J-K-L

ID	Identification
KIA	Killed in action
km	Kilometer
LADW	Local air defense warning
LD	Line of departure
log	Logistics
LZ	Landing zone

M

m	Meter(s)
m	Mil
M1/M1A1	Abrams tank
MDMP	Military decision-making process

ACRONYMS

M

MEDEVAC	Medical evacuation
MEL	Maximum engagement line
METL	Mission essential task list
METT-TC	Mission, enemy, troops, terrain, time, and civilian considerations
MLRS	Multiple launch rocket system
mm	millimeter
MOPP	Mission oriented protection posture
MORTREP	Mortar report

N

NBC	Nuclear, biological, chemical
NOD(s)	Night observation device(s)
NVG	Night vision Goggles

O

OAKOC	Observation/fields of fire, avenues of approach, key terrain, obstacles and movement, and cover and concealment
OBJ	Objective
OJT	On the job training

ACRONYMS

O-P

OP	Observation post
OPORD	Operation order
ORP	Objective rally point
PB	Patrol base
PIR	Priority intelligence requirements
PMCS	Preventive maintenance checks and services
PZ	Pickup zone
PZCO	Pickup zone control officer

R

RAP	Rocket assisted projectile
ROE	Rules of engagement
RP	Release point/rally point/reference point
R& S	Reconnaissance and surveillance

S

SHELREP	Shell report
SOI	Signal operation instructions
SP	Start point
STANO	Surveillance, target acquisition and night observation

ACRONYMS

T

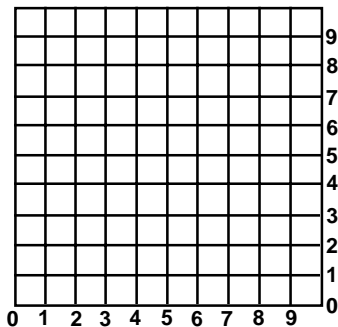
TOW	Tube-launched, optically-tracked, wire-guided
TRP	Target reference point

U-Z

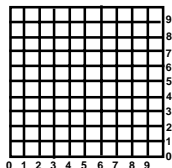
WIA	Wounded in action
WP	White phosphorus
WPN	Weapon
WRP	Weapons reference point

COMBAT LEADERS' GUIDE

1/25,000 OR 1/250,000



1/50,000



READ RIGHT → THEN UP ↑

CALL FOR FIRE CARD

STEP 1

ID:

(STEPS 4 & 5 ARE OPTIONAL)

WARNING ORDER: AF / FFE / S / IS POLAR / SHIFT (GRID)

.....

LOCATION: (POLAR) DIR DIS

(SHIFT) DIR

STEP 2

L/R +/-

(GRID)

STEP 3

DESCRIPTION:

METHOD OF ENGAGEMENT:

METHOD OF CONTROL:

* DO NOT SAY WORDS IN PARENTHESES

STEP 5